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Canada Hydrographic and Map Service



# TIDE TABLES

FOR THE

# EASTERN COASTS OF CANADA

FOR THE YEAR

1920



Including the River and Gulf of St. Lawrence, the Atlantic Coast,  
the Bay of Fundy, Northumberland and Cabot Straits;  
and Information on Currents.

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Issued by the TIDAL AND CURRENT SURVEY in the DEPARTMENT OF THE NAVAL  
SERVICE of the DOMINION OF CANADA.

(Twenty-fourth year of issue.)

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W. Bell Dawson, M.A., D.Sc., M.Inst.C.E., F.R.S.C., Superintendent.

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OTTAWA

J. de LABROQUERIE TACHÉ  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

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## OTHER INFORMATION ISSUED BY THE TIDAL SURVEY.

**TIDE TABLES FOR THE PACIFIC COAST OF CANADA.**—Including Victoria, B.C., Clayoquot, Sand Heads in the Strait of Georgia, Vancouver, Prince Rupert and Port Simpson. With tidal differences for Esquimalt, New Westminster, Nanaimo, and other localities throughout the Strait of Georgia, and northward to Port Simpson; and information on the Currents in the various passes and narrows, with tables showing the time of Slack Water.

**TIDE TABLES FOR POINTS ON THE ST. LAWRENCE SHIP CHANNEL.**—Prepared specially and supplied, with other tidal information, for a publication issued by the Marine Department for the use of the Pilot service.

**ABRIDGED EDITIONS.**—Two pocket editions in small size are issued; one containing the Tide Tables for Quebec and Father Point, and the other the Tide Tables for St. John, N.B., together with the time of arrival of the Bore at Moncton. With these, tidal differences are given for localities in the St. Lawrence region and the Bay of Fundy respectively. Also, a pocket edition for the Pacific coast including Vancouver and the Strait of Georgia, and the turn of the current in the navigable passes of southern British Columbia.

**INVESTIGATION OF CURRENTS.**—The permanent and tidal sets of the Current on the leading steamship routes have also been investigated by the Tidal and Current Survey. The regions now examined include the Gulf of St. Lawrence, Northumberland strait, Belle Isle strait, the Bay of Fundy and the offing of the South coast of Newfoundland. The results obtained have been published as pamphlets, copies of which may be had on application to the Department of the Naval Service, Ottawa. These pamphlets are as follows:—

“The Currents in the Gulf of St. Lawrence,” including Belle Isle and Cabot straits, and Northumberland strait. Describing the currents, and explaining the general circulation of the water in the Gulf. 46 pages, with Map.

“The Currents in the Entrance to the St. Lawrence,” including the Anticosti region, and the Gaspé current, from investigations during three seasons. 50 pages, with Map.

“The Currents in Belle Isle strait,” from investigations during two seasons. 43 pages, with a Chart and three Plates illustrating the character of the current.

“The Currents on the South-eastern coasts of Newfoundland, and the amount of Indraught into the Larger Bays on the South coast.” 33 pages, with eight Plates showing the set of the currents, and a general Chart.

“Tables of the Currents in the Bay of Fundy.” Giving the direction and velocity of the tidal streams, hour by hour, and the time of slack water, throughout the region extending from St. John, N.B., to Cape Sable. 15 pages, with Tables and Chart of currents.

Brief summaries of the more important results of these investigations are given with the information on currents in pages 59 to 65.

# TIDE TABLES FOR THE EASTERN COASTS OF CANADA FOR 1920.

These Tide Tables with Tidal Differences for other places, are issued by the Tidal and Current Survey, in the Department of the Naval Service of the Dominion of Canada. They are based upon observations obtained by means of self-registering tide gauges, which are kept in continuous operation day and night throughout the year. The records are reduced by the latest methods of harmonic analysis, by which the Tidal Constants are arrived at; and from these the six principal tide tables are calculated.

**TIDE TABLES FOR PORTS OF REFERENCE.**—The Tide Tables for Quebec are based upon tidal record during nineteen complete years, between January, 1894, and April, 1914. The Tide Tables for Father Point are based upon tidal record during fifteen complete years; between January, 1897 and July, 1916. The Tide Tables for Halifax are based upon the analysis of a tidal record which was obtained during the years 1851, 1852, 1860, and 1861, together with the record obtained by this Survey during nine complete years, between October, 1895, and July, 1906. The Tide Tables for St. John, N.B., are based upon tidal record during twenty complete years, between April, 1894, and November, 1915. The Tide Tables for St. Paul island, which commands the main entrance to the Gulf of St. Lawrence, are based upon tidal record during seventeen complete years, between October, 1895, and May, 1916. The Tide Tables for Charlottetown are based upon tidal record during eight complete years; between October, 1907, and June, 1917.

As the accuracy of tide tables is represented by the length of the tidal observations on which they are based, the tables for all the ports of reference, namely, Quebec, Father Point, St. Paul island, Halifax and St. John, are now superior to the tide tables for any other harbours on the Atlantic coast, from Maine to the Gulf of Mexico.

**TIDE TABLES FOR OTHER PORTS.**—The tables for Cap à la Roche above Quebec, are based on the Semaphore record during the seasons of 1901, 1902, 1903 and 1904, and on tide gauge records throughout the five seasons of 1905, 1906, 1915, 1916 and 1917. These have afforded simultaneous comparisons with Quebec. They show a variation with the stage of the river as it becomes lower during the season, which is allowed for in the calculations.

The Traverse. The turn of the current in the Lower Traverse is based upon observations obtained in 1900, from May to September, taken day and night. The difference with the Upper Traverse is from simultaneous observations in 1900, compared with earlier observations in the seasons of 1896 and 1897.

Pictou. Calculated from Charlottetown by means of two series of variable differences, for high water and low water respectively; which vary with the phases of the moon during the lunar month. They are derived from simultaneous observations at the two places in six summer seasons between 1901 and 1915, affording 28 months of comparison.

Yarmouth. Computed from St. John, on the basis of simultaneous observations at the two places during two full years from 1898 to 1900.

Portage island, Miramichi bay. Based on two seasons of observations in 1917 and 1918. High Water and Low Water are computed independently from two different ports of reference, namely, St. Paul island and Sand Heads in the Strait of Georgia where the tide is of a similar type.

**TIDAL DIFFERENCES.**—By means of these differences, the time of the tide can be found for numerous ports, from the figures in the tide tables which are given in full.

W. BELL DAWSON,

*Superintendent of Tidal Surveys.*

## THE ATLANTIC COAST OF NOVA SCOTIA.—TIDE AT QUEBEC.

LOCALITIES REFERRED TO HALIFAX.—The whole south-eastern coast of Nova Scotia can be referred to Halifax with advantage; and the tidal differences are small, as the tide is nearly simultaneous throughout this region.

From observations taken in 1902 from Shelburne to Yarmouth, it was found that ports in the vicinity of Cape Sable and eastward can best be referred to Halifax; while from Pubnico westward they can be referred to St. John, N.B., with greater accuracy. The limit eastward is at Scatari; as the north-eastern coast of Cape Breton island must be included with Cabot strait, and referred to St. Paul island. Some part of south-eastern Newfoundland can also be referred to Halifax with advantage, as indicated by observations at Trepassey near Cape Race.

### WITH HALIFAX TIDE TABLES.

TIDAL DIFFERENCES; Atlantic Coast of Nova Scotia.

All results obtained, are in Atlantic Standard time.

LOCALITY.	DIFFERENCES.		RISE OF TIDE		SPRING TIDE.		NEAP TIDE.	
	For H. W.	For L. W.	Springs	Neaps.	(Average Range, 18 feet.)	(Average Range, 10½ feet.)		
	H. M.	H. M.	Feet.	Feet.	Hour.	Feet.	Hour.	Feet.
Cape Sable, at Clarkes harbour.....	add 1 33	add 0 54	10½	8½	At Low Water.....	0·0	At Low Water....	2·7
Barrington passage.....	" 0 56	" 0 26	9	7	1 h. after L. W....	5·1	1 h. after L. W....	4·6
Shelburne.....	" 0 35	" 0 13	7½	5½	2 h. " " ....	10·0	2 h. " " ....	7·9
Liverpool bay.....	" 0 16	" 0 02	8	5	3 h. " " ....	13·9	3 h. " " ....	10·6
Lunenburg.....	" 0 15	" 0 03	7	6	4 h. " " ....	16·9	4 h. " " ....	12·3
Mahone bay.....	" 0 05	sub.0 06	7½	6½	4½ h. (At H. W.)....	18·0	5 h. " " ....	13·1
St. Margaret bay....	" 0 04	" 0 03	7	6	1 h. after H. W....	15·3	5¼ h. (At H. W.)...	13·2
HALIFAX HARBOUR....	" 0 00	" 0 00	6½	5½	2 h. " " ....	11·2	1 h. after H. W....	12·0
Sable island, N. side...	sub.0 33	.....	4	.....	3 h. " " ....	9·1	2 h. " " ....	10·4
Sable island, S. side....	" 1 33	.....	4	.....	4 h. " " ....	7·0	3 h. " " ....	8·9
Jeddore harbour.....	" 0 06	sub.0 08	6½	5	5 h. " " ....	4·7	4 h. " " ....	7·2
Sheet harbour.....	" 0 03	" 0 06	6½	4½	6 h. " " ....	2·7	5 h. " " ....	5·4
Liscomb harbour.....	" 0 07	" 0 10	6½	4½	7 h. " " ....	0·9	6 h. " " ....	3·9
Country harbour.....	" 0 14	" 0 14	6½	5	7½ h. (At L. W.)...	0·0	7½ h. (At L. W.)...	2·7
Canso harbour.....	" 0 05	" 0 04	6	4½				
Guyborough.....	add 0 12	add 0 20	6½	4½				
Arichat.....	" 0 08	" 0 14	5½	4				
St. Peter bay.....	sub.0 12	sub.0 07	6½	5				
Louisburg harbour.....	" 0 08	" 0 14	5½	4				

Variations in the Range at Quebec.—The more important variations from the average ranges above given, are : (1) With the moon's distance. When Perigee occurs at the new or full moon, the height of one of the Spring tides of the month may be three feet more than the other. (2) When the moon is in high declination, north or south of the equator, a few days occur when the two tides of the day are quite unequal in range. At such times, the Spring range may be a foot and three-quarters more or less than the average. The Neap tides are similarly affected.

Cap à la Roche; depth available.—At Cap à la Roche, the stage of the river is usually 5 or 6 feet above the Chart datum in April and May, and it falls during the season till September or October, when it may be less than a foot above the Chart datum. (For the Stage of the River in the various months, see Table on page 8.)

Throughout the season, Low water falls to the level of the stage of the river in the course of the Neap tides. But at the Spring tides, Low water is never quite down to the stage of the river; and as the river becomes lower during the season, the difference between them increases from 0·50 to 1·10 feet.

Hence, there is somewhat more depth at Low water than the stage of the river indicates, at all times in the month except at the Neap tides. This is chiefly of importance when the river is at its lowest.

## THE ST. LAWRENCE RIVER AND ESTUARY.

**LOCALITIES REFERRED TO QUEBEC.**—From tidal observations taken in 1900 it was found that the tidal portion of the St. Lawrence above Orignaux point, or the Traverse, to the head of tide-water at Lake St. Peter, can all be referred to Quebec. The open estuary below Orignaux point can be referred to Father Point with much better results. The upper part of the Saguenay can best be referred to Quebec, as the tide is similar in character. For the ports on the lower Saguenay, the values are intermediate between Tadoussac and Bagotville at the head of the inlet, as referred to Father Point.

**LOCALITIES REFERRED TO FATHER POINT.**—It has been ascertained by careful comparison of simultaneous observations, that the whole of the open estuary of the St. Lawrence below Orignaux point, and the North shore of the Gulf as far as Mingan and Natashkwan, can be referred to Father Point with the best advantage; together with Anticosti, Gaspé and Chaleur bay.

### WITH QUEBEC TIDE TABLES.

#### TIDAL DIFFERENCES for the St. Lawrence.

All results obtained, are in Eastern Standard time

LOCALITY.	DIFFERENCES.		RANGE.	
	For H. W.	For L. W.	Springs. Feet.	Neaps. Feet.
Three Rivers.....	add 4 45	add 6 15	1	½
Champlain.....	" 4 08	" 5 30	3	1
Batican.....	" 3 32	" 4 49	3½	1½
Cap à la Roche*.....	" 2 37	" 3 48	7	3½
Grondines.....	" 2 14	" 3 18	8½	5
Barre à Boulard opposite Lotbinière.....	" 2 04	" 2 41	9½	5½
Richelieu rapids.....				
Pointe Platon.....	" 1 43	" 2 11	13½	9½
Ste. Croix.....	" 1 31	" 2 00	14	9½
Neuville.....	" 1 12	" 1 15	16	10½
St. Augustin bar.....	" 0 54	" 0 53	16½	11
St. Nicholas.....	" 0 35	" 0 32	17½	12
QUEBEC.....	" 0 00	" 0 00	18½	13
St. Laurent.....	sub.0 20	sub.0 30	18	13½
St. Jean d'Orleans.....	" 0 35	" 0 50	18	14
Berthier.....	" 0 47	" 1 08	18½	14½
Grosse Isle.....	" 0 57	" 1 19	19½	14
Crane island wharf.....	" 1 08	" 1 35	19½	13½
Beaujeu channel.....	" 1 10	" 1 43	19	13½
L'Islet.....	" 1 17	" 2 05	18½	13½
St. Jean Port-joli.....	" 1 31	" 2 40	18½	13½
Coudres island.....	" 2 16	" 3 10	18	13
SAGUENAY:—				
Chicoutimi**.....	" 3 33	" 3 31	17½	11½

\* See full Tide Tables for Cap à la Roche as published herein; and for the depth available, see opposite page.

\*\* In freshet months, Low Water does not fall to the normal level, from which the rise is measured. (For Tadoussac and Bagotville, see next table.)

### WITH FATHER POINT TIDE TABLES.

**TIDAL DIFFERENCES for the St. Lawrence estuary.**  
The results obtained, are in Eastern Standard time as far as Point des Monts; then Atlantic Standard.

LOCALITY.	DIFFERENCES.		RISE OF TIDE.	
	For H. W.	For L. W.	Springs. Feet.	Neaps. Feet.
SOUTH SHORE:—				
Orignaux point.....	add 1 35	add 1 48	18½	13½
Rivière du Loup.....	" 0 53	" 0 58	16½	11
Brandy Pots.....	" 0 46	" 0 49	17½	10½
Green island.....	" 0 35	" 0 39	16½	10½
Trois Pistoles.....	" 0 07	" 0 11	16	10
Bic harbour.....	" 0 10	" 0 15	14½	8½
FATHER POINT.....	" 0 00	" 0 00	14½	8½
Little Metis.....	sub.0 02	sub.0 03	13½	8
Matane.....	" 0 04	" 0 05	12½	7½
Grands Mechins.....	" 0 05	" 0 06	12	7½
Cape Chat.....	" 0 08	" 0 10	12	7
Ste. Anne des Monts	" 0 15	" 0 14	11½	6½
NORTH SHORE:—				
Murray bay.....	add 1 02	add 1 07	17½	11
Tadoussac.....	" 0 34	" 0 37	17	10½
Bagotville at head of Saguenay.....	" 0 46	" 0 48	18½	13
Escoumanns.....	" 0 06	" 0 16	15½	9½
Jeremy islets.....	sub.0 03	" 0 02	14½	8½
Point des Monts....	" 0 16	sub.0 15	12	7½
In Atlantic time:—				
Egg island.....	add 0 40	add 0 41	11	6
Cawee islands.....	" 0 35	" 0 36	9	5
Seven islands.....	" 0 31	" 0 32	9	5
Moisie bay.....	" 0 17	.....	8	5
St. John river.....	sub.0 23	.....	7	4
Mingan.....	" 0 32	sub.0 25	7	4

NOTE.—For the North shore east of Mingan, and for Gaspé, Chaleur bay and Miramichi, see page 11.



*Depth available.*—The above table gives the data from which the depth, in addition to the Chart soundings, may be found, by combining the figures for the Stage of the River with the Spring or Neap range. It is to be noted that the figures given for each month, are average values for several seasons; without allowance for the notable variations which may occur between one season and another.

*Tidal differences above Quebec.*—The differences for the time of the tide above Quebec are now based upon a large amount of information; the earliest being the series of observations by Mr. R. Steckel of the Public Works Department, taken in the autumn of 1887 and the spring of 1888 at six points simultaneously; namely, St. Nicholas, Pointe Platon, Grondines, Cap à la Roche, Batiscan and Champlain. There are also records from registering semaphores placed in the vicinity of bars in the river, which give the time for every 3 or 6 inches of rise and fall during daylight throughout the season. Since 1893, a registering tide gauge maintained by the Tidal Survey, has been in operation summer and winter, at Lévis opposite Quebec; and all observations along the river can thus be compared with the simultaneous record at this tidal station.

The semaphore record obtained and reduced is as follows: At Lotbinière in the season of 1895; at Ste. Croix bar, in 1897 and 1898; at St. Augustin bar, for three months in 1902; at Cap à la Roche, in the seasons of 1901, 1902, 1903 and 1904. A series of simultaneous observations, chiefly scale readings, were taken by the Hydrographic Survey at Pointe Platon, Lotbinière, Ste. Emélie, Cap à la Roche, and Batiscan, in 1902 and 1903. At Cap à la Roche, observations with a registering tide gauge supplied by this Survey, were obtained in 1905 and 1906, under the supervision of the Chief Engineer of Montreal harbour. Observations with registering tide gauges for the Waterways Commission have been obtained by the Hydrographic Survey in the seasons of 1915, 1916 and 1917 at the six points following: St. Nicholas, Neuville, Pointe Platon, Barre à Boulard, Cap à la Roche and Batiscan.

The tidal differences for the St. Lawrence above Quebec are the outcome of a careful correlation of all these observations with reference to the tidal station in Quebec harbour.

*Variation with the season.*—The following table shows the amount of variation in the time which the tidal undulation takes to run up from Quebec to localities in the river above, as affected by the stage of the river. The spring freshet is by no means the same in every year; as it varies in different seasons from 3 to 9 feet above the low stage of the late summer, as shown by the river gauge at Sorel. The figures here given as freshet values may be taken to represent conditions on an average for several seasons. Below St. Augustin bar, the effect of the freshet on the difference of time from Quebec, is not appreciable.

*Tides above Quebec.—Differences to be added to the time at Quebec.*

Localities.	For High Water.		For Low Water.		General Average.	
	Freshet value.	Summer average.	Freshet value.	Summer average.	For H. W.	For L. W.
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
Batiscan.....	3 41	3 27	4 51	4 48	3 32	4 49
Cap à la Roche.....	2 36	2 38	3 56	3 44	2 37	3 48
Grondines.....	2 12	2 16	3 26	3 15	2 14	3 18
Lotbinière wharf.....	2 07	2 11	3 04	2 53	2 09	2 56
Barre à Boulard.....	2 01	2 06	2 48	2 38	2 04	2 41
Pointe Platon.....	1 40	1 45	2 19	2 08	1 43	2 11
Ste. Croix bar.....	1 30	1 33	2 03	1 57	1 31	2 00
St. Augustin bar.....	.....	.....	.....	.....	0 54	0 53

*Beaujeu channel.*—This channel runs through the only bar below Quebec. The time of the tide here, is found by the tidal difference on page 7. From comparisons at both Spring and Neap tides, it has been ascertained that the rise in Beaujeu channel will not be less for any tide than in the Tide Tables for Quebec.

## THE GULF OF ST. LAWRENCE.

On the North shore of the Gulf, the rising tide and High Water are in accord with the entering tide in Cabot strait, while the falling tide and Low Water are in accord with the St. Lawrence estuary. The tidal differences are therefore to be applied in the two directions as indicated. For the Miramichi region and the north coast of Prince Edward island, the tidal differences must be subtracted from the next following tide at St. Paul island. Otherwise the differences would not be constant. For the central part of Northumberland strait, Pictou is utilized as a secondary port of reference.

TIDAL DIFFERENCES to be applied to the Tide Tables named under Port of Reference. All results obtained are in Atlantic Standard time for the 60th Meridian west.

Locality.	Port of Reference.	For H. W.	For L. W.	RISE OF TIDE.	
				Sp'gs.	Neaps.
<b>NORTHUMBERLAND STRAIT :—</b>					
Cheticamp . . . . .	Pictou . . . . .	sub. 1 17	sub. 1 22	3½	2¾
Port Hood . . . . .	" . . . . .	" 0 45	" 0 47	4½	3½
Souris . . . . .	" . . . . .	" 1 22	" 1 17	4½	3
Georgetown . . . . .	" . . . . .	" 1 00	" 0 55	5	3½
Cape Bear . . . . .	" . . . . .	" 0 42	.....	6	4½
Antigonish . . . . .	" . . . . .	" 0 44	.....	4	2½
Cape George . . . . .	" . . . . .	" 0 30	.....	4	2½
PICTOU . . . . .	" . . . . .	" 0 00	sub. 0 00	6½	4½
Tatamagouche . . . . .	" . . . . .	add 0 04	.....	8	5
Pugwash . . . . .	" . . . . .	" 0 36	.....	7	4
Baie Verte . . . . .	" . . . . .	" 0 27	.....	8	5
CHARLOTTETOWN. (See Tide Tables.) . . . . .	Charlottetown . . . . .	add 0 00	add 0 00	9½	8
Cape Tormentine . . . . .	" . . . . .	sub. 0 05	sub. 0 01	7½	6
Port Borden, P.E.I. (Carleton head) . . . . .	" . . . . .	add 0 05	add 0 14	7½	6
Summerside . . . . .	" . . . . .	" 0 18	" 0 27	7	5
Shediac bay* . . . . .	" . . . . .	(variable)	sub. 0 30	4	3
<b>NORTH COAST, P.E.I. (See note †):—</b>					
Tignish . . . . .	St. Paul island . . . . .	sub. 3 50	sub. 3 32	3½	2½
Alberton . . . . .	" . . . . .	" 2 45	" 2 30	3½	2½
Malpeque, Richmond bay . . . . .	" . . . . .	" 2 05	" 1 45	3½	2½
Grand Rustico . . . . .	" . . . . .	" 2 42	" 2 27	3½	2½
St. Peters bay, at the entrance . . . . .	" . . . . .	" 2 01	" 1 57	3½	2½
Naufrage, and Shipwreck point . . . . .	" . . . . .	" 1 41	" 1 33	3½	2½
<b>MAGDALEN ISLANDS :—</b>					
Pleasant bay . . . . .	" . . . . .	add 1 00	add 0 54	3	2
<b>CABOT STRAIT :—</b>					
Neil harbour, N.S. . . . .	" . . . . .	sub. 0 19	sub. 0 23	4½	3½
Ingonis . . . . .	" . . . . .	" 0 28	" 0 32	4	2½
St. Ann harbour . . . . .	" . . . . .	" 0 12	" 0 18	6	4½
Sydney, N.S. . . . .	" . . . . .	" 0 22	" 0 27	5	4
Glace bay . . . . .	" . . . . .	" 0 34	" 0 32	4½	3½
Port aux Basques, Newfoundland . . . . .	" . . . . .	add 0 17	add 0 17	5½	3½
Cape Race, at Trepassey harbour . . . . .	Halifax . . . . .	sub. 0 32	sub. 0 52	6½	5

\* While the declination of the Moon is at all high, north or south of the equator, the tide has a pronounced range once only in the day. At Richibucto, it is the rise which is pronounced, and the other tides remain near the low-water level. In Shediac bay the fall is pronounced, with little variation from the high-water level on the other tides, whose range is not over 1½ feet. The differences given are for these pronounced tides.

† Along this coast, when the Moon is near its extreme declination north or south of the equator, there is only one well marked H. W. and L. W. in the day, and the other two have less than half a foot of range. The time of these flat tides is indefinite, and the tidal differences do not apply to them.

## THE GULF OF ST. LAWRENCE—Continued.

TIDAL DIFFERENCES. All results are in Atlantic Standard time, for the 60th Meridian, W.

Locality.	FOR HIGH WATER.		FOR LOW WATER.		RISE OF TIDE.	
	With Father Point.	With St. Paul Island.	With Father Point.	With St. Paul Island.	Springs.	Neaps.
BELLE ISLE STRAIT :—						
Chateau bay; at Henley harbour.....	.....	sub. 1 24	.....	sub. 1 25	4	2½
Fortean bay.....	.....	add 1 18	.....	add 1 30	5½	3
Blanc Sablon .....	.....	" 1 35	.....	.....	5	3
Port Saunders, Nfld.....	.....	" 2 07	sub. 3 28	.....	6	4
NORTH SHORE :—						
Bras d'Or bay.....	.....	" 1 50	.....	.....	5	3
Bonne Espérance.....	.....	" 1 54	sub. 3 38	.....	5½	3
Mistanoque.....	.....	" 2 12	.....	.....	6	3½
Harrington harbour.....	.....	" 2 18	sub. 3 18	.....	5	3
Wapitagan harbour.....	.....	" 2 20	.....	.....	5	3
Kegashka bay.....	.....	" 2 48	.....	.....	5	3
Natashkwan harbour.....	.....	" 3 17	sub. 2 11	.....	5	3
Appeitetat bay .....	sub. 1 40	.....	.....	.....	5	3
Betcheewun harbour.....	.....	" 1 21	.....	.....	5	3
Clearwater point.....	.....	" 1 18	.....	.....	5	3
Eskimo point.....	.....	" 1 05	.....	sub. 0 55	6	3½
Mingan harbour.....	.....	" 0 32	.....	" 0 25	7	4
ANTICOSTI AND GASPÉ COAST :—						
Ellis bay .....	add 0 17	.....	.....	add 0 19	6	4
South-west point.....	sub. 0 04	.....	.....	sub. 0 02	6	4
Fox river.....	add 0 39	.....	.....	add 0 36	6	4½
Gaspé basin.....	.....	" 0 51	.....	" 0 52	5½	3½
Point Peter.....	.....	" 0 55	.....	" 0 56	5	3½
CHALEUR BAY :—						
Port Daniel and Paspebiac .....	add 1 11	.....	.....	add 1 10	6	4
New Richmond.....	.....	" 1 18	.....	" 1 13	7	5
Carleton point, Que.....	.....	" 1 22	.....	" 1 16	8	5
Dalhousie, N.B.....	.....	" 1 29	.....	" 1 23	9	6
Campbellton.....	.....	" 2 30	.....	" 2 28	10	7
Bathurst.....	.....	" 1 46	.....	" 2 11	7	4
Caraquet harbour.....	.....	" 1 31	.....	" 1 45	6	4
Shippigan harbour.....	.....	" 1 51	.....	" 1 50	6½	4
Miscou harbour.....	.....	" 1 36	.....	" 1 32	6	4
MIRAMICHI REGION AND SOUTHWARD :—						
Lower Neguac, Miramichi bay.....	.....	sub. 3 22	.....	sub. 3 07	4½	3
Portage island (see Tide Tables).....	.....	" 3 52	.....	.....	4	2½
(For Chatham, Horse-shoe bar, etc., see Tide Tables and Differences, pages 55 to 57.)	.....	.....	.....	.....	.....	.....
Point Sapin, near Point Escuminac.....	.....	sub. 4 03	add 3 10	.....	4	2½
Richibucto* at the breakwater.....	.....	" 3 17	(variable)	.....	4	2½

\* While the declination of the Moon is at all high, north or south of the equator, the tide has a pronounced range once only in the day. At Richibucto, it is the rise which is pronounced, and the other tides remain near the low-water level. In Shediac bay the fall is pronounced, with little variation from the high-water level on the other tides, whose range is not over 1½ feet. The differences given are for these pronounced tides.

## TIDAL DIFFERENCES FOR THE BAY OF FUNDY.

**LOCALITIES REFERRED TO ST. JOHN, N.B.**—The Bay of Fundy as a whole can be referred to St. John with advantage, as found from simultaneous tidal observations throughout the bay in 1898. From further observations taken in 1902, from Yarmouth to Shelburne, it was found that the outer part of the bay, as far as Pubnico, can best be referred to St. John; while ports in the vicinity of Cape Sable and eastward can be referred to Halifax with greater accuracy.

### WITH ST. JOHN TIDE TABLES.

All results obtained are in Atlantic Standard time for the 60th Meridian.

Localities in lower part of the Bay.	DIFFERENCES.		RISE OF TIDE		Localities in upper part of the Bay.	DIFFERENCES.		RISE OF TIDE		
	For	For	Sp'gs.	Neaps.		For	H. W.	Sp'gs.	Neaps.	
	H. W.	L. W.				H. M.	H. M.	Feet.	Feet.	
Lower East Pubnico ...	sub.1	56	sub.2	18	12	10	ST. JOHN HARBOUR.....	add 0 00	25½	21½
Yarmouth harbour.....	" 1	07	" 1	15	16	13	Quaco.....	" 0 12	30	25
Grand passage.....	" 0	31	" 0	29	21	17	Spicers cove, near Cape Chignecto.....	" 0 12	37	30½
Petit passage.....	" 0	34	" 0	28	22	18	Grindstone island .....	" 0 21	41	34½
Weymouth .....	" 0	26	" 0	22	24	20	Folly point; at mouth of Petit-codiac river.....	" 0 24	45	38
Digby pier.....	" 0	18	" 0	17	27½	23	Moncton.....	" 0 46	*	*
Annapolis.....	add 0 06	add 0 10			29	24	Cumberland basin at Sackville..	" 0 30	46½	39
Machias Seal island....	sub.0 08				18	14½	In Minas basin :—			
Grand Manan island :—							Parrsboro pier.....	" 0 53	43	37½
Seal cove.....	" 0 22				20	15	Horton bluff.....	" 1 04	48	40
Grand harbour.....	" 0 10				21	17½	Windsor.....	" 1 07	*	*
Fish head.....	" 0 03				22½	18½	Burntcoat head †.....	" 1 08	51½	46
Campobello island at Welchpool.....	add 0 02	add 0 10			23½	20	Spencer anchorage.....	" 0 17	39	33
Eastport, Maine‡.....	" 0 00	" 0 08			21	18	Black Rock point.....	" 0 03	36	31
St. Andrews.....	" 0 07	" 0 17			25	21½	Isle Haute .....	sub.0 04	33	28½
L'Etang harbour.....	" 0 01	" 0 05			23½	20	Port George.....	" 0 07	32	28
Lepreau bay.....	sub.0 01	" 0 03			24½	21				

**AVAILABLE DRAUGHT.**—The draught here given is the average amount. It may vary as much as two feet, more or less, from the average.

All the wharves mentioned below, dry at Low Water.

	At H. W. Spring tides (Average)	At H. W. Neap tides (Average)
Windsor—At the railway wharf.....	14 feet	8 feet
(At other wharves at Windsor, the draught is nearly the same.)		
Avon River—At Colonial Fertilized Co's wharf, at mouth of St. Croix river.....	24 feet	18 feet
Parrsboro pier—At the head of the pier.....	34 feet	28 feet
Sackville—At Government wharf; depth on bed of mattress-work on which vessels lie at low water .....	25 feet	19 feet
Dorchester—Depth on bed of mattress-work.....	29 feet	22 feet
Hopewell cape—At the head of the wharf .....	37 feet	30 feet
Moncton—At Public wharf; depth on bed of mattress-work .....	24 feet	18 feet
(At other wharves along the city front the draught is about 4 feet less.)		

**BORE AT MONCTON.**—Tables of the time of arrival of the Bore are published in the Abridged Edition of the Tide Tables for St. John and the Bay of Fundy.

\* River tide; does not fall to true low-water level. See draught given in lower table.

† For the tide in Eastern Standard time, add the tidal difference given, and then deduct one hour.

‡ The rise for spring tides at the head of the arms as here given (for Cumberland basin and Burntcoat head) is the maximum at perigee springs. When apogee occurs at the springs, the rise is 4 to 5 feet less.

## PHASES AND DISTANCE OF THE MOON.—1920.

In Atlantic Standard time; for the 60th Meridian west.

Month.	New Moon.		First Quarter.		Full Moon.		Last Quarter.		Perigee.		Apogee.	
	DAY.	H. M.	DAY.	H. M.	DAY.	H. M.	DAY.	H. M.	DAY.	H.	DAY.	H.
January	.	.	28th	11:39	5th	17:05	12th	20:09	4th	11	16th	13
February	19th	17:35	26th	19:49	4th	4:42	11th	16:49	1st	14	13th	8
March	20th	6:56	27th	2:45	4th	17:13	12th	13:57	28th	10	12th	5
April	18th	17:43	25th	9:27	3rd	6:55	11th	9:24	24th	8	9th	0
May	18th	2:25	24th	17:07	2nd	21:47	11th	1:51	20th	21	6th	16
June	16th	9:41	23rd	2:50	1st	13:18	9th	14:58	19th	2	3rd	0
July	15th	16:25	22nd	15:20	1st	4:41	9th	1:06	14th	20	30th	3
August	13th	23:44	21st	6:52	29th	9:03	7th	8:51	12th	2	24th	1
September	12th	8:52	20th	0:55	27th	21:57	5th	15:05	8th	18	20th	19
October	11th	20:50	19th	20:29	27th	10:09	4th	20:54	4th	6	18th	15
November	10th	12:05	18th	16:13	25th	21:42	3rd	3:35	30th	11	15th	10
December	10th	6:04	18th	10:40	25th	8:38	2nd	12:29	27th	10	13th	1
									25th	20		

*Relation of the Moon to the Tide.*—The influence of the moon on the tide takes place in three leading periods or months of different lengths:—(1) The well-known month of the moon's phases (synodic month) from new moon to new moon. (2) The month of the moon's distance (anomalistic month) from perigee to perigee. (3) The month of the moon's declination, north and south of the equator; the declination being another word for the same thing as latitude on the earth. Just as the sun crosses the equator twice in the course of the year and goes north in summer and south in winter, so the moon does in the course of the declination-month. There is thus a time in each month when the moon rises to a high altitude on the meridian; and it falls to a low meridian altitude half a month later. The three types of month above mentioned, has each its own special length, the first being the longest; and they therefore over-run each other.

The most important fact to note is that these various movements of the moon have a very different effect upon the tide in different regions. As a rule, in any particular region, some one of these movements has so preponderating an effect that the influence of the others is obscured. Or, it may be that two of them have a nearly equal effect and the influence of the third is difficult to detect. Thus in the Bay of Fundy, the variation in the range of the tide with the moon's distance is distinctly greater than the variation from springs to neaps; and in Northumberland strait, the difference in range between the two tides of the day may be half as much again as the true difference between springs and neaps. (See explanations on page 62.)

In the North Atlantic, especially on the coasts of Europe, the most marked feature of the tide is the variation from springs to neaps in accordance with the moon's phases. But to assume that this must be the leading feature everywhere, and that for practical purposes all other influences may be ignored, is a mistake which has placed a serious obstacle in the way of the correct understanding of the tides generally.

## NOTE ON HEIGHT OF THE TIDE.

The *Rise* of the tide is the difference in level between High Water and the Low-water datum, or zero level of the Tide Tables.

The *Range* of the tide is the difference in level between any High Water and the previous or following Low Water.

The *Height* of the tide is the difference, at any moment, between the level of the water and the datum, or zero level of the Tide Tables. This zero level is in all cases the same as the datum from which the chart soundings are measured.

Date.	Day.	JANUARY.								Date.	Day.	FEBRUARY.									
		HIGH WATER.				LOW WATER.						HIGH WATER.				LOW WATER.					
		Time.	H. t.	Time.	H. t.	Time.	H. t.	Time.	H. t.			Time.	H. t.	Time.	H. t.	Time.	H. t.	Time.	H. t.		
		H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.			H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
1	Th.	1:22	12·9	13:51	14·9	8:16	2·5	21:09	2·3	1	So.	3:18	12·8	15:38	15·4	10:15	1·9	23:08	1·0		
2	F.	2:30	13·2	14:50	15·8	9:19	2·3	22:14	1·9	2	M.	4:16	13·6	16:36	16·2	11:15	1·4	.....			
3	Sa.	3:31	13·8	15:48	16·6	10:24	2·0	23:20	1·3	3	Tu.	5:09	14·4	17:26	16·8	0:05	0·4	12:11	0·9		
4	So.	4:28	14·3	16:43	17·2	11:28	1·7	.....		4	W.	5:57	15·2	18:14	17·2	0:57	0·0	13:04	0·5		
5	M.	5:22	14·9	17:35	17·7	0:21	0·7	12:26	1·3	5	Th.	6:43	15·8	19:01	17·3	1:43	0·1	13:54	0·3		
6	Tu.	6:13	15·4	18:25	18·0	1:14	0·3	13:18	0·9	6	F.	7:28	16·3	19:47	17·1	2:26	0·0	14:40	0·3		
7	W.	7:02	15·7	19:14	18·0	2:02	0·1	14:08	0·7	7	Sa.	8:12	16·4	20:32	16·5	3:07	0·3	15:24	0·5		
8	Th.	7:50	15·9	20:03	17·6	2:48	0·1	14:56	0·7	8	So.	8:56	16·2	21:18	15·7	3:47	0·7	16:07	0·9		
9	F.	8:38	15·9	20:53	16·9	3:33	0·2	15:43	0·8	9	M.	9:42	15·8	22:06	14·6	4:26	1·1	16:49	1·3		
10	Sa.	9:27	15·5	21:44	15·9	4:17	0·5	16:31	1·1	10	Tu.	10:30	15·1	23:02	13·4	5:06	1·5	17:33	1·8		
11	So.	10:17	15·0	22:37	14·8	5:01	1·0	17:20	1·5	11	W.	11:22	14·3	.....		5:48	1·8	18:23	2·2		
12	M.	11:12	14·4	23:36	13·6	5:46	1·4	18:11	1·9	12	Th.	0:03	12·3	12:21	13·5	6:33	2·1	19:20	2·4		
13	Tu.	.....	12:11	13·9	6:33	1·8	19:06	2·2	13	F.	1:07	11·5	13:26	13·1	7:25	2·3	20:24	2·4			
14	W.	0:43	12·7	13:12	13·6	7:24	2·1	20:05	2·4	14	Sa.	2:11	11·3	14:30	13·1	8:25	2·4	21:30	2·1		
15	Th.	1:51	12·2	14:10	13·6	8:19	2·2	21:06	2·3	15	So.	3:11	11·6	15:27	13·6	9:29	2·2	22:28	1·7		
16	F.	2:50	12·1	15:05	14·0	9:15	2·2	22:06	1·9	16	M.	4:05	12·2	16:16	14·2	10:28	2·0	23:18	1·3		
17	Sa.	3:43	12·3	15:56	14·4	10:10	2·1	23:02	1·6	17	Tu.	4:51	12·8	16:57	14·8	11:21	1·7	.....			
18	So.	4:29	12·6	16:42	14·8	11:02	2·0	23:53	1·3	18	W.	5:30	13·5	17:36	15·3	0:04	1·1	12:08	1·5		
19	M.	5:12	13·0	17:21	15·2	11:49	1·8	.....		19	Th.	6:05	14·1	18:11	15·8	0:46	1·1	12:53	1·4		
20	Tu.	5:53	13·3	17:57	15·5	0:36	1·2	12:34	1·8	20	F.	6:37	14·8	18:45	16·1	1:26	1·2	13:36	1·3		
21	W.	6:30	13·6	18:32	15·7	1:16	1·2	13:17	1·7	21	Sa.	7:08	15·5	19:18	16·2	2:05	1·3	14:18	1·3		
22	Th.	7:04	13·9	19:06	15·9	1:55	1·3	13:59	1·7	22	So.	7:38	16·1	19:53	16·2	2:43	1·5	15:00	1·3		
23	F.	7:36	14·3	19:40	16·1	2:33	1·3	14:40	1·6	23	M.	8:11	16·5	20:32	16·0	3:21	1·6	15:43	1·4		
24	Sa.	8:07	14·8	20:15	16·0	3:10	1·4	15:21	1·6	24	Tu.	8:48	16·7	21:16	15·2	4:00	1·7	16:29	1·6		
25	So.	8:39	15·1	20:52	15·7	3:46	1·5	16:03	1·6	25	W.	9:30	16·4	22:07	14·1	4:42	1·9	17:19	2·0		
26	M.	9:15	15·3	21:33	15·0	4:24	1·6	16:48	1·7	26	Th.	10:23	15·7	23:12	12·9	5:28	2·2	18:17	2·4		
27	Tu.	9:57	15·2	22:27	14·0	5:05	1·8	17:37	2·0	27	F.	11:30	14·7	.....		6:24	2·6	19:25	2·5		
28	W.	10:52	14·8	23:36	13·0	5:53	2·0	18:34	2·4	28	Sa.	0:30	12·0	12:51	14·1	7:32	2·8	20:36	2·3		
29	Th.	11:59	14·4	.....		6:49	2·3	19:42	2·5	29	So.	1:55	11·9	14:11	14·3	8:48	2·6	21:48	1·7		
30	F.	0:56	12·3	13:16	14·3	7:56	2·5	20:56	2·3												
31	Sa.	2:12	12·2	14:31	14·7	9:08	2·4	22:05	1·7												

The TIME used is Eastern Standard, for the 75th Meridian, which is five hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is measured from the Datum of the Admiralty and Hydrographic Survey charts of Quebec harbour. It is in feet and tenths throughout the tables.

LÉVIS DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 7·7 feet to the height of High Water as above given. The TIDAL DIFFERENCES referred to Quebec, are given on page 7; and a table showing the turn of the TIDAL STREAMS on the St. Lawrence, on page 58.

Date.	Day.	MARCH.								APRIL.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	M.	3:05	12'6	15:22	14'9	9:57	2'1	22:53	1'1	1	Th.	4:36	15'6	16:54	16'1	11:37	1'3	.....	
2	Tu.	4:05	13'6	16:21	15'6	10:58	1'4	23:49	0'5	2	F.	5:19	16'6	17:39	16'5	0:11	1'1	12:29	1'1
3	W.	4:56	14'7	17:12	16'3	11:54	0'8	.....		3	Sa.	6:00	17'3	18:23	16'6	0:53	1'3	13:15	1'2
4	Th.	5:41	15'7	17:59	16'7	0:37	0'3	12:46	0'5	4	S.	6:39	17'7	19:06	16'5	1:32	1'7	13:57	1'5
5	F.	6:23	16'5	18:43	16'8	1:19	0'4	13:33	0'5	5	M.	7:17	17'8	19:48	16'1	2:09	2'1	14:36	1'8
6	Sa.	7:04	16'9	19:25	16'7	1:59	0'6	14:17	0'6	6	Tu.	7:54	17'7	20:28	15'6	2:45	2'5	15:14	2'1
7	S.	7:44	17'1	20:06	16'3	2:37	1'0	14:58	0'9	7	W.	8:32	17'2	21:07	14'8	3:20	2'7	15:52	2'4
8	M.	8:25	17'0	20:48	15'6	3:14	1'4	15:38	1'3	8	Th.	9:12	16'6	21:48	13'9	3:54	2'7	16:32	2'6
9	Tu.	9:07	16'6	21:33	14'6	3:50	1'7	16:18	1'6	9	F.	9:55	15'8	22:37	13'0	4:30	2'8	17:15	2'8
10	W.	9:50	15'9	22:22	13'5	4:27	1'9	17:00	2'0	10	Sa.	10:45	14'8	23:39	12'2	5:11	2'9	18:02	3'0
11	Th.	10:36	14'9	23:18	14'4	5:05	2'1	17:45	2'4	11	S.	11:47	13'9	.....		6:02	3'2	18:57	3'0
12	F.	11:29	13'9	.....		5:46	2'4	18:37	2'6	12	M.	0:53	11'8	13:00	13'5	7:02	3'3	19:58	3'0
13	Sa.	0:25	11'5	12:36	13'3	6:38	2'6	19:39	2'7	13	Tu.	1:59	12'2	14:12	13'7	8:09	3'2	21:00	2'8
14	S.	1:38	11'2	13:46	13'0	7:42	2'7	20:46	2'4	14	W.	2:56	13'1	15:12	14'3	9:18	3'0	21:59	2'5
15	M.	2:40	11'6	14:51	13'4	8:52	2'7	21:45	2'1	15	Th.	3:46	14'2	16:02	15'1	10:20	2'6	22:51	2'4
16	Tu.	3:34	12'4	15:47	14'1	9:56	2'3	22:39	1'8	16	F.	4:27	15'4	16:43	15'8	11:15	2'3	23:37	2'3
17	W.	4:21	13'3	16:34	14'9	10:52	2'0	23:28	1'5	17	Sa.	5:03	16'5	17:21	16'4	.....	12:05	2'1	
18	Th.	5:02	14'3	17:14	15'6	11:43	1'7	.....		18	S.	5:38	17'6	17:58	16'9	0:22	2'4	12:54	1'9
19	F.	5:36	15'3	17:50	16'1	0:14	1'6	12:31	1'6	19	M.	6:12	18'6	18:36	17'2	1:06	2'5	13:42	1'8
20	Sa.	6:07	16'2	18:25	16'5	0:57	1'7	13:17	1'5	20	Tu.	6:48	19'2	19:16	17'0	1:49	2'6	14:29	1'8
21	S.	6:39	17'1	18:59	16'7	1:38	1'8	14:02	1'5	21	W.	7:27	19'4	20:00	16'6	2:33	2'6	15:17	1'9
22	M.	7:12	17'8	19:35	16'6	2:18	1'9	14:46	1'5	22	Th.	8:11	19'1	20:49	16'0	3:19	2'7	16:06	2'0
23	Tu.	7:48	18'2	20:15	16'3	2:57	2'0	15:30	1'6	23	F.	9:00	18'4	21:45	15'1	4:08	2'9	16:57	2'3
24	W.	8:28	18'1	21:00	15'6	3:37	2'2	16:15	1'8	24	Sa.	9:56	17'2	22:48	14'1	5:00	3'1	17:52	2'7
25	Th.	9:14	17'6	21:52	14'4	4:22	2'4	17:05	2'2	25	S.	11:01	16'0	23:58	13'5	5:56	3'5	18:51	2'9
26	F.	10:09	16'5	22:57	13'3	5:13	2'7	18:03	2'6	26	M.	.....		12:21	14'9	7:00	3'6	19:54	2'9
27	Sa.	11:15	15'3	.....		6:12	3'1	19:09	2'8	27	Tu.	1:16	13'5	13:39	14'6	8:07	3'4	20:55	2'6
28	S.	0:18	12'5	12:33	14'4	7:18	3'3	20:18	2'6	28	W.	2:24	14'2	14:45	14'9	9:15	3'0	21:54	2'3
29	M.	1:40	12'4	13:58	14'3	8:31	3'1	21:26	2'1	29	Th.	3:21	15'3	15:42	15'5	10:19	2'4	22:48	2'1
30	Tu.	2:49	13'2	15:09	14'8	9:39	2'5	22:28	1'6	30	F.	4:11	16'3	16:33	15'9	11:17	2'0	23:37	2'1
31	W.	3:47	14'4	16:06	15'5	10:40	1'8	23:23	1'2										

The TIME used is Eastern Standard, for the 75th Meridian, which is five hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is measured from the Datum of the Admiralty and Hydrographic Survey charts of Quebec harbour. It is in feet and tenths throughout the tables.

LÉVIS DRY DOCK.—To find the depth of water on the sill of this dock at any tide add 7'7 feet to the height of High Water as above given. THE TIDAL DIFFERENCES referred to Quebec, are given on page 7; and a table showing the turn of the TIDAL STREAMS on the St. Lawrence, on page 58.

Date.	Day.	MAY.								JUNE.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	Sa.	4:55	17 <sup>1</sup>	17:18	16 <sup>1</sup>	.....		12:07	1 <sup>8</sup>	1	Tu.	5:48	17 <sup>7</sup>	18:17	15 <sup>2</sup>	0:30	3 <sup>3</sup>	13:13	2 <sup>6</sup>
2	So.	5:36	17 <sup>7</sup>	18:00	16 <sup>1</sup>	0:21	2 <sup>4</sup>	12:51	2 <sup>0</sup>	2	W.	6:25	17 <sup>7</sup>	18:56	15 <sup>1</sup>	1:09	3 <sup>4</sup>	13:51	2 <sup>7</sup>
3	M.	6:15	18 <sup>0</sup>	18:40	16 <sup>0</sup>	1:01	2 <sup>7</sup>	13:32	2 <sup>3</sup>	3	Th.	7:01	17 <sup>6</sup>	19:34	14 <sup>9</sup>	1:47	3 <sup>6</sup>	14:28	2 <sup>9</sup>
4	Tu.	6:52	18 <sup>1</sup>	19:19	15 <sup>7</sup>	1:38	3 <sup>1</sup>	14:11	2 <sup>6</sup>	4	F.	7:37	17 <sup>5</sup>	20:12	14 <sup>7</sup>	2:24	3 <sup>6</sup>	15:04	2 <sup>9</sup>
5	W.	7:28	18 <sup>0</sup>	19:57	15 <sup>4</sup>	2:14	3 <sup>4</sup>	14:49	2 <sup>8</sup>	5	Sa.	8:14	17 <sup>2</sup>	20:51	14 <sup>5</sup>	3:02	3 <sup>5</sup>	15:41	2 <sup>9</sup>
6	Th.	8:03	17 <sup>7</sup>	20:36	14 <sup>9</sup>	2:49	3 <sup>5</sup>	15:26	3 <sup>0</sup>	6	So.	8:52	16 <sup>7</sup>	21:31	14 <sup>3</sup>	3:41	3 <sup>4</sup>	16:19	2 <sup>8</sup>
7	F.	8:39	17 <sup>2</sup>	21:17	14 <sup>3</sup>	3:25	3 <sup>5</sup>	16:04	3 <sup>0</sup>	7	M.	9:33	16 <sup>2</sup>	22:14	14 <sup>1</sup>	4:22	3 <sup>4</sup>	17:00	2 <sup>9</sup>
8	Sa.	9:18	16 <sup>5</sup>	22:02	13 <sup>7</sup>	4:03	3 <sup>4</sup>	16:44	3 <sup>0</sup>	8	Tu.	10:18	15 <sup>5</sup>	23:02	14 <sup>0</sup>	5:07	3 <sup>4</sup>	17:45	3 <sup>0</sup>
9	So.	10:03	15 <sup>7</sup>	22:54	13 <sup>2</sup>	4:44	3 <sup>4</sup>	17:28	3 <sup>1</sup>	9	W.	11:16	14 <sup>7</sup>	23:59	14 <sup>0</sup>	5:59	3 <sup>6</sup>	18:34	3 <sup>2</sup>
10	M.	10:57	14 <sup>8</sup>	23:56	12 <sup>9</sup>	5:32	3 <sup>5</sup>	18:17	3 <sup>2</sup>	10	Th.	...	...	12:25	14 <sup>2</sup>	7:00	3 <sup>7</sup>	19:27	3 <sup>3</sup>
11	Tu.	...	12:05	14 <sup>2</sup>	6:29	3 <sup>7</sup>	19:14	3 <sup>3</sup>	11	F.	1:04	14 <sup>4</sup>	13:36	14 <sup>1</sup>	8:06	3 <sup>7</sup>	20:24	3 <sup>3</sup>	
12	W.	1:06	13 <sup>1</sup>	13:21	14 <sup>1</sup>	7:33	3 <sup>8</sup>	20:17	3 <sup>3</sup>	12	Sa.	2:05	15 <sup>2</sup>	14:41	14 <sup>4</sup>	9:13	3 <sup>5</sup>	21:25	3 <sup>3</sup>
13	Th.	2:09	13 <sup>8</sup>	14:26	14 <sup>4</sup>	8:41	3 <sup>7</sup>	21:15	3 <sup>2</sup>	13	So.	3:02	16 <sup>2</sup>	15:37	14 <sup>9</sup>	10:16	3 <sup>1</sup>	22:27	3 <sup>2</sup>
14	F.	3:01	15 <sup>0</sup>	15:20	15 <sup>1</sup>	9:45	3 <sup>3</sup>	22:08	3 <sup>1</sup>	14	M.	3:53	17 <sup>4</sup>	16:27	15 <sup>5</sup>	11:14	2 <sup>6</sup>	23:25	3 <sup>0</sup>
15	Sa.	3:44	16 <sup>2</sup>	16:07	15 <sup>7</sup>	10:43	2 <sup>9</sup>	22:58	3 <sup>0</sup>	15	Tu.	4:39	18 <sup>3</sup>	17:15	16 <sup>0</sup>	.....		12:08	2 <sup>1</sup>
16	So.	4:24	17 <sup>4</sup>	16:51	16 <sup>3</sup>	11:36	2 <sup>5</sup>	23:47	2 <sup>9</sup>	16	W.	5:24	19 <sup>1</sup>	18:02	16 <sup>4</sup>	0:19	2 <sup>7</sup>	13:00	1 <sup>7</sup>
17	M.	5:03	18 <sup>5</sup>	17:34	16 <sup>8</sup>	.....		12:28	2 <sup>2</sup>	17	Th.	6:10	19 <sup>5</sup>	18:49	16 <sup>6</sup>	1:11	2 <sup>5</sup>	13:51	1 <sup>5</sup>
18	Tu.	5:42	19 <sup>3</sup>	18:16	17 <sup>0</sup>	0:36	2 <sup>9</sup>	13:19	2 <sup>0</sup>	18	F.	6:58	19 <sup>5</sup>	19:37	16 <sup>8</sup>	2:01	2 <sup>3</sup>	14:41	1 <sup>3</sup>
19	W.	6:23	19 <sup>8</sup>	18:59	17 <sup>0</sup>	1:25	2 <sup>9</sup>	14:09	1 <sup>9</sup>	19	Sa.	7:48	19 <sup>3</sup>	20:27	16 <sup>6</sup>	2:50	2 <sup>1</sup>	15:30	1 <sup>3</sup>
20	Th.	7:08	19 <sup>9</sup>	19:45	16 <sup>8</sup>	2:15	2 <sup>8</sup>	14:58	1 <sup>8</sup>	20	So.	8:41	18 <sup>6</sup>	21:21	16 <sup>3</sup>	3:39	2 <sup>1</sup>	16:18	1 <sup>5</sup>
21	F.	7:57	19 <sup>5</sup>	20:35	16 <sup>4</sup>	3:04	2 <sup>8</sup>	15:46	1 <sup>9</sup>	21	M.	9:37	17 <sup>6</sup>	22:18	15 <sup>8</sup>	4:29	2 <sup>2</sup>	17:06	1 <sup>8</sup>
22	Sa.	8:50	18 <sup>8</sup>	21:31	15 <sup>8</sup>	3:54	2 <sup>8</sup>	16:36	2 <sup>1</sup>	22	Tu.	10:36	16 <sup>4</sup>	23:18	15 <sup>2</sup>	5:21	2 <sup>6</sup>	17:55	2 <sup>2</sup>
23	So.	9:48	17 <sup>7</sup>	22:35	15 <sup>1</sup>	4:45	3 <sup>0</sup>	17:29	2 <sup>4</sup>	23	W.	11:40	15 <sup>1</sup>	.....		6:17	2 <sup>9</sup>	18:45	2 <sup>6</sup>
24	M.	10:53	16 <sup>3</sup>	23:45	14 <sup>5</sup>	5:40	3 <sup>3</sup>	18:24	2 <sup>8</sup>	24	Th.	0:21	15 <sup>0</sup>	12:47	14 <sup>2</sup>	7:17	3 <sup>2</sup>	19:39	2 <sup>9</sup>
25	Tu.	.....	12:03	15 <sup>2</sup>	6:39	3 <sup>5</sup>	19:22	2 <sup>9</sup>	25	F.	1:25	14 <sup>9</sup>	13:56	13 <sup>8</sup>	8:20	3 <sup>2</sup>	20:36	3 <sup>0</sup>	
26	W.	0:58	14 <sup>5</sup>	13:17	14 <sup>7</sup>	7:45	3 <sup>5</sup>	20:23	3 <sup>9</sup>	26	Sa.	2:25	15 <sup>1</sup>	14:57	13 <sup>8</sup>	9:26	3 <sup>0</sup>	21:34	3 <sup>0</sup>
27	Th.	2:01	14 <sup>9</sup>	14:22	14 <sup>7</sup>	8:53	3 <sup>2</sup>	21:22	2 <sup>8</sup>	27	So.	3:18	15 <sup>6</sup>	15:49	13 <sup>9</sup>	10:29	2 <sup>6</sup>	22:28	3 <sup>0</sup>
28	F.	2:56	15 <sup>6</sup>	15:19	14 <sup>9</sup>	9:57	2 <sup>8</sup>	22:16	2 <sup>7</sup>	28	M.	4:04	16 <sup>0</sup>	16:35	14 <sup>0</sup>	11:23	2 <sup>4</sup>	23:16	3 <sup>0</sup>
29	Sa.	3:44	16 <sup>4</sup>	16:10	15 <sup>1</sup>	10:56	2 <sup>5</sup>	23:05	2 <sup>8</sup>	29	Tu.	4:46	16 <sup>4</sup>	17:18	14 <sup>2</sup>	.....		12:08	2 <sup>3</sup>
30	So.	4:28	16 <sup>9</sup>	16:56	15 <sup>3</sup>	11:48	2 <sup>4</sup>	23:49	3 <sup>0</sup>	30	W.	5:26	16 <sup>7</sup>	17:59	14 <sup>3</sup>	0:01	3 <sup>0</sup>	12:48	2 <sup>2</sup>
31	M.	5:09	17 <sup>4</sup>	17:37	15 <sup>3</sup>	.....		12:33	2 <sup>4</sup>										

The TIME used is Eastern Standard, for the 75th Meridian, which is five hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is measured from the Datum of the Admiralty and Hydrographic Survey charts of Quebec harbour. It is in feet and tenths throughout the tables.

LÉVIS DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 7.7 feet to the height of High Water as above given. THE TIDAL DIFFERENCES referred to Quebec, are given on page 7; and a table showing the turn of the TIDAL STREAMS on the St. Lawrence, on page 58.

Date	Day.	JULY.								Date	Day.	AUGUST.									
		HIGH WATER.				LOW WATER.						HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	Th.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	1	S.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
2	F.	6:04	16'8	18:38	14'4	0:44	3'1	13:27	2'2	2	M.	6:57	16'4	19:24	14'8	1:43	2'2	14:15	1'7		
3	Sa.	6:41	16'9	19:15	14'5	1:26	3'1	14:05	2'3	3	Tu.	7:31	16'4	19:54	15'2	2:23	2'2	14:51	1'8		
4	S.	7:17	16'9	19:50	14'7	2:06	3'0	14:42	2'3	4	W.	8:04	16'3	20:23	15'6	3:02	2'1	15:27	1'9		
5	M.	8:28	16'7	20:24	14'8	2:45	3'0	15:19	2'3	5	Th.	9:14	15'6	21:30	15'9	4:24	2'2	16:43	2'0		
6	Tu.	9:06	16'3	21:32	15'0	4:06	2'8	16:36	2'4	6	F.	9:56	14'7	22:18	15'6	5:11	2'5	17:25	2'3		
7	W.	9:46	15'7	22:12	15'0	4:49	2'8	17:16	2'5	7	Sa.	10:54	13'6	23:20	15'0	6:06	2'8	18:16	2'6		
8	Th.	10:31	14'9	23:00	14'8	5:36	3'0	17:59	2'7	8	S.	.....	.....	12:16	12'6	7:11	3'0	19:17	2'8		
9	F.	11:29	14'0	.....	.....	6:31	3'3	18:48	2'9	9	M.	0:39	14'6	13:35	12'3	8:24	3'0	20:27	2'9		
10	Sa.	0:00	14'7	12:46	13'5	7:35	3'4	19:46	3'0	10	Tu.	1:54	14'8	14:44	12'6	9:36	2'5	21:41	2'6		
11	S.	1:11	15'0	14:02	13'3	8:46	3'3	20:52	3'1	11	W.	3:02	15'4	15:46	13'5	10:41	1'8	22:48	2'1		
12	M.	2:24	15'6	15:07	13'7	9:54	2'8	22:00	3'0	12	Th.	4:04	16'2	16:41	14'5	11:38	1'1	23:46	1'5		
13	Tu.	3:27	16'5	16:04	14'4	10:56	2'2	23:03	2'6	13	F.	4:59	17'0	17:31	15'5	.....	.....	12:30	0'6		
14	W.	4:21	17'4	16:57	15'1	11:54	1'6	.....	....	14	Sa.	5:48	17'6	18:19	16'3	0:38	0'9	13:18	0'3		
15	Th.	5:12	18'1	17:48	15'8	0:01	2'1	12:47	1'1	15	S.	6:36	17'9	19:05	16'4	1:27	0'6	14:02	0'2		
16	F.	6:01	18'6	18:37	16'3	0:55	1'7	13:37	0'8	16	M.	7:23	17'8	19:49	17'2	2:15	0'5	14:44	0'4		
17	Sa.	6:49	18'7	19:25	16'6	1:47	1'3	14:24	0'6	17	Tu.	8:09	17'3	20:32	17'2	3:02	0'6	15:25	0'7		
18	S.	7:38	18'6	20:14	16'8	2:37	1'2	15:09	0'6	18	W.	8:56	16'5	21:16	16'7	3:48	0'9	16:06	1'1		
19	M.	8:28	18'1	21:04	16'7	3:25	1'2	15:53	0'8	19	Th.	9:44	15'5	22:04	16'0	4:34	1'3	16:48	1'6		
20	Tu.	9:20	17'1	21:55	16'3	4:12	1'3	16:38	1'2	20	F.	10:36	14'2	22:58	15'1	5:21	1'9	17:32	2'0		
21	W.	10:15	15'9	22:47	15'7	5:00	1'8	17:24	1'7	21	Sa.	11:36	12'8	.....	.....	6:10	2'4	18:20	2'4		
22	Th.	11:15	14'6	23:43	15'0	5:49	2'3	18:12	2'2	22	S.	0:00	14'2	12:44	11'9	7:04	2'7	19:12	2'7		
23	F.	.....	.....	12:19	13'5	6:42	2'7	19:03	2'6	23	M.	1:05	13'5	13:50	11'5	8:04	2'7	20:09	2'7		
24	Sa.	0:44	14'5	13:22	12'7	7:42	3'0	19:56	2'8	24	Tu.	2:09	13'4	14:50	11'7	9:08	2'4	21:10	2'6		
25	S.	1:46	14'2	14:22	12'4	8:51	2'9	20:51	2'9	25	W.	3:07	13'7	15:45	12'2	10:09	2'0	22:07	2'3		
26	M.	2:41	14'4	15:18	12'6	9:56	2'5	21:47	2'7	26	Th.	4:00	14'2	16:34	12'9	11:03	1'6	23:00	2'0		
27	Tu.	3:33	14'7	16:10	12'9	10:54	2'1	22:41	2'5	27	F.	4:46	14'8	17:16	13'6	11:49	1'4	23:50	1'7		
28	W.	4:22	15'1	16:58	13'3	11:43	1'8	23:31	2'4	28	Sa.	5:27	15'3	17:54	14'3	.....	.....	12:30	1'3		
29	Th.	5:06	15'6	17:40	13'7	.....	.....	12:24	1'6	29	S.	6:04	15'8	18:27	14'9	0:36	1'6	13:09	1'3		
30	F.	5:45	15'9	18:19	14'1	0:17	2'3	13:02	1'6	30	M.	6:37	16'1	18:56	15'5	1:19	1'6	13:47	1'5		
31	Sa.	6:22	16'2	18:53	14'4	1:01	2'2	13:39	1'6	31	Tu.	7:09	16'2	19:24	16'1	2:01	1'6	14:24	1'7		

The TIME used is Eastern Standard, for the 75th Meridian, which is five hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is measured from the Datum of the Admiralty and Hydrographic Survey charts of Quebec harbour. It is in feet and tenths throughout the tables.

LEVIS DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 7.7 feet to the height of High Water as above given. The TIDAL DIFFERENCES referred to Quebec, are given on page 7; and a table showing the turn of the TIDAL STREAMS on the St. Lawrence, on page 58.

Date.	Day	SEPTEMBER.								Date.	Day	OCTOBER.									
		HIGH WATER.				LOW WATER.						HIGH WATER.				LOW WATER.					
		Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.			Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.		
1	W.	7:42 16·2	19:55 16·6	2:42 1·7	15:00 1·8	1	F.	7:56 13·0	20:04 17·9	3:09 1·6	15:16 2·0										
2	Th.	8:17 15·9	20:24 16·9	3:24 1·7	15:37 1·9	2	Sa.	8:35 15·4	20:42 17·6	3:54 1·8	15:58 2·5										
3	F.	8:54 15·4	21:02 16·7	4:08 1·9	16:16 2·0	3	Su.	9:21 14·5	21:30 16·8	4:42 2·1	16:44 2·5										
4	Sa.	9:35 14·5	21:48 16·2	4:55 2·2	16:59 2·2	4	M.	10:18 13·4	22:33 15·6	5:34 2·5	17:33 2·8										
5	Su.	10:29 13·3	22:50 15·3	5:49 2·5	17:51 2·6	5	Tu.	11:30 12·5	23:49 14·5	6:34 2·7	18:42 3·0										
6	M.	11:44 12·2	.....	6:55 2·8	18:56 2·9	6	W.	...	12:54 12·2	7:42 2·6	19:54 3·0										
7	Tu.	0:08 14·5	13:13 11·8	8:09 2·8	20:13 2·9	7	Th.	1:14 14·0	14:12 12·7	8:51 2·3	21:04 2·5										
8	W.	1:33 14·2	14:31 12·3	9:16 2·3	21:22 2·5	8	F.	2:34 14·4	15:16 13·8	9:54 1·7	22:09 1·8										
9	Th.	2:48 14·7	15:34 13·3	10:18 1·6	22:26 1·8	9	Sa.	3:38 15·1	16:09 15·1	10:51 1·2	23:09 1·2										
10	F.	3:53 15·5	16:25 14·6	11:15 0·9	23:25 1·1	10	Su.	4:31 15·8	16:56 16·2	11:42 0·9	.....										
11	Sa.	4:49 16·3	17:12 15·8	.. ..	12:06 0·5	11	M.	5:18 16·2	17:39 17·1	0:04 0·8	12:27 0·9										
12	Su.	5:38 17·0	17:56 16·7	0:19 0·6	12:53 0·3	12	Tu.	6:02 16·5	18:20 17·6	0:55 0·7	13:10 1·2										
13	M.	6:22 17·2	18:39 17·3	1:09 0·4	13:37 0·5	13	W.	6:44 16·4	19:00 17·7	1:41 0·9	13:51 1·6										
14	Tu.	7:05 17·1	19:21 17·6	1:57 0·5	14:19 0·8	14	Th.	7:25 16·0	19:39 17·6	2:23 1·2	14:30 1·9										
15	W.	7:48 16·7	20:03 17·5	2:42 0·8	15:00 1·2	15	F.	8:06 15·5	20:18 17·3	3:04 1·6	15:08 2·2										
16	Th.	8:32 16·0	20:46 17·1	3:26 1·1	15:40 1·6	16	Sa.	8:48 14·7	20:58 16·6	3:44 2·0	15:45 2·4										
17	F.	9:18 15·0	21:31 16·4	4:09 1·5	16:19 1·9	17	Su.	9:34 13·8	21:41 15·7	4:23 2·2	16:23 2·5										
18	Sa.	10:08 13·8	22:19 15·4	4:52 2·0	16:57 2·2	18	M.	10:25 13·0	22:30 14·8	5:04 2·4	17:03 2·6										
19	Su.	11:02 12·7	23:12 14·3	5:37 2·4	17:37 2·5	19	Tu.	11:25 12·1	23:30 13·8	5:49 2·5	17:48 2·7										
20	M.	.....	12:03 11·7	6:28 2·6	18:24 2·7	20	W.	.....	12:34 11·6	6:39 2·6	18:42 2·8										
21	Tu.	0:16 13·4	13:13 11·3	7:26 2·7	19:22 2·8	21	Th.	0:39 13·2	13:39 11·8	7:35 2·6	19:45 2·9										
22	W.	1:28 13·0	14:18 11·5	8:27 2·5	20:28 2·7	22	F.	1:51 13·1	14:36 12·6	8:36 2·4	20:54 2·6										
23	Th.	2:33 13·2	15:16 12·2	9:23 2·1	21:33 2·3	23	Sa.	2:54 13·6	15:25 13·6	9:36 2·1	21:59 2·3										
24	F.	3:30 13·8	16:07 13·2	10:16 1·7	22:31 2·0	24	Su.	3:47 14·3	16:08 14·7	10:30 1·9	22:55 2·0										
25	Sa.	4:19 14·5	16:50 14·2	11:06 1·5	23:23 1·7	25	M.	4:31 15·0	16:46 15·7	11:17 1·9	23:45 1·7										
26	Su.	5:02 15·2	17:26 15·1	11:52 1·4	.....	26	Tu.	5:08 15·5	17:22 16·6	.....	12:02 2·0										
27	M.	5:39 15·8	17:57 15·8	0:10 1·5	12:34 1·5	27	W.	5:44 15·9	17:57 17·5	0:33 1·6	12:45 2·1										
28	Tu.	6:13 16·1	18:27 16·5	0:56 1·5	13:15 1·7	28	Th.	6:21 16·0	18:31 18·2	1:19 1·6	13:27 2·1										
29	W.	6:46 16·2	18:58 17·2	1:41 1·5	13:55 1·9	29	F.	6:59 16·1	19:06 18·5	2:04 1·6	14:10 2·2										
30	Th.	7:20 16·2	19:30 17·7	2:25 1·6	14:35 2·0	30	Sa.	7:39 16·0	19:45 18·6	2:50 1·6	14:54 2·2										
						31	Su.	8:24 15·5	20:32 18·1	3:38 1·7	15:41 2·3										

The TIME used is Eastern Standard, for the 75th Meridian, which is five hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is measured from the Datum of the Admiralty and Hydrographic Survey charts of Quebec harbour. It is in feet and tenths throughout the tables.

LÉVIS DRY DOCK—To find the depth of water on the sill of this dock at any tide add 7·7 feet to the height of high water as above given. THE TIDAL DIFFERENCES referred to Quebec, are given on page 7; and a table showing the turn of the TIDAL STREAMS on the St. Lawrence on page 58.

		NOVEMBER.										DECEMBER.					
Date.	Day.	HIGH WATER.		LOW WATER.		Date.	Day.	HIGH WATER.		LOW WATER.		Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.
		Time. H't.	H. M. FT.	Time. H't.	H. M. FT.			Time. H't.	H. M. FT.	Time. H't.	H. M. FT.						
1	M.	9:15	14·8	21:26	17·1	4:29	1·9	16:32	2·5	1	W.	9:58	14·7	22:18	16·2	5:02	1·5
2	Tu.	10:13	14·0	22:27	16·0	5:23	2·2	17:27	2·7	2	Th.	11:03	14·2	23:26	14·9	5:54	1·8
3	W.	11:20	13·3	23:39	14·8	6:19	2·4	18:30	2·9	3	F.	...	...	12:12	13·8	6:49	2·0
4	Th.	.....	12:36	13·0	7:19	2·4	19:36	2·8	4	Sa.	0:41	14·1	13:22	14·0	7:48	2·1	
5	F.	1:02	14·1	13:49	13·4	8:22	2·3	20:43	2·5	5	Su.	1:54	13·7	14:25	14·5	8:49	2·1
6	Sa.	2:16	14·2	14:54	14·4	9:23	2·0	21:47	2·0	6	M.	2:57	13·9	15:21	15·2	9:49	2·0
7	Su.	3:18	14·7	15:48	15·5	10:19	1·6	22:47	1·5	7	Tu.	3:50	14·1	16:10	15·8	10:43	1·9
8	M.	4:10	15·1	16:34	16·4	11:11	1·5	23:43	1·2	8	W.	4:38	14·3	16:52	16·3	11:30	2·0
9	Tu.	4:56	15·4	17:15	17·1	11:58	1·6	...	...	9	Th.	5:22	14·3	17:30	16·6	0:16	1·3
10	W.	5:40	15·5	17:55	17·4	0:34	1·2	12:42	1·9	10	F.	6:04	14·3	18:07	16·7	0:59	1·5
11	Th.	6:22	15·4	18:34	17·5	1:19	1·4	13:23	2·2	11	Sa.	6:44	14·3	18:45	16·6	1:39	1·7
12	F.	7:03	15·2	19:12	17·4	2:01	1·7	14:02	2·5	12	Su.	7:23	14·2	19:22	16·5	2:17	1·8
13	Sa.	7:43	14·8	19:49	17·0	2:41	2·0	14:40	2·6	13	M.	8:01	14·1	20:00	16·3	2:54	1·9
14	Su.	8:23	14·3	20:27	16·6	3:20	2·2	15:17	2·6	14	Tu.	8:39	13·9	20:40	15·9	3:30	1·9
15	M.	9:04	13·8	21:07	16·0	3:58	2·2	15:55	2·6	15	W.	9:18	13·7	21:22	15·4	4:07	1·9
16	Tu.	9:48	13·3	21:52	15·2	4:36	2·2	16:35	2·6	16	Th.	9:59	13·5	22:06	14·7	4:45	1·8
17	W.	10:38	12·8	22:47	14·4	5:16	2·3	17:19	2·6	17	F.	10:43	13·3	22:56	13·9	5:25	1·9
18	Th.	11:38	12·4	23:51	13·6	6:02	2·3	18:11	2·7	18	Sa.	11:35	13·1	23:57	13·2	6:09	2·0
19	F.	.....	12:46	12·4	6:53	2·4	19:11	2·8	19	Su.	.....	12:36	13·2	6:58	2·2	19:34	2·7
20	Sa.	1:02	13·2	18:50	12·9	7:50	2·5	20:17	2·8	20	M.	1:07	12·9	13:42	13·8	7:55	2·3
21	Su.	2:11	13·3	14:44	13·8	8:50	2·4	21:22	2·6	21	Tu.	2:16	13·0	14:40	14·6	8:58	2·4
22	M.	3:09	13·8	15:29	14·8	9:44	2·3	22:20	2·2	22	W.	3:17	13·4	15:30	15·6	9:59	2·3
23	Tu.	3:56	14·4	16:08	16·0	10:34	2·3	23:14	1·9	23	Th.	4:08	14·0	16:17	16·6	10:57	2·2
24	W.	4:38	14·9	16:45	17·0	11:23	2·2	.....	...	24	F.	4:54	14·5	17:03	17·4	11:52	1·9
25	Th.	5:18	15·3	17:21	17·8	0:06	1·7	12:11	2·2	25	Sa.	5:39	15·0	17:48	18·0	0:35	1·1
26	F.	5:57	15·6	17:59	18·4	0:57	1·5	12:59	2·1	26	Su.	6:24	15·5	18:33	18·3	1:26	0·8
27	Sa.	6:37	15·8	18:41	18·7	1:47	1·3	13:47	2·1	27	M.	7:10	15·8	19:19	18·3	2:15	0·6
28	Su.	7:21	15·8	19:28	18·7	2:36	1·2	14:36	1·9	28	Tu.	7:57	15·9	20:07	18·0	3:03	0·5
29	M.	8:09	15·6	20:20	18·2	3:24	1·2	15:26	1·8	29	W.	8:46	15·8	20:59	17·2	3:51	0·5
30	Tu.	9:01	15·3	21:16	17·3	4:12	1·3	16:18	1·9	30	Th.	9:39	15·5	21:58	16·2	4:40	0·8
										31	F.	10:39	15·0	23:05	14·8	5:30	1·1

The TIME used is Eastern Standard, for the 75th Meridian, which is five hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is measured from the Datum of the Admiralty and Hydrographic Survey charts of Quebec harbour. It is in feet and tenths throughout the tables.

LÉVIS DRY DOCK.—To find the depth of water on the sill of this dock at any tide add 7·7 feet to the height of High Water as above given. The TIDAL DIFFERENCES referred to Quebec, are given on pages 7 and a table showing the turn of the TIDAL STREAMS on the St. Lawrence on page 58.

## TIDE TABLES.—CAP A LA ROCHE.—1920.

## APRIL.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.	HIGH WATER.		LOW WATER.		Moon.	
		Morn'g.	After'n.	Morn'g.	After'n.		Morn'g.	After'n.	Morn'g.	After'n.		
1	Th.	7	13	19	31	○	1	Sa.	7	31	19	54
2	F.	7	56	20	16		2	S.	8	12	20	36
3	Sa.	8	37	21	00		3	M.	8	51	21	16
4	S.	9	16	21	43		4	Tu.	9	28	21	55
5	M.	9	54	22	25		5	W.	10	04	22	33
6	Tu.	10	31	23	05		6	Th.	10	39	23	12
7	W.	11	09	23	44		7	F.	11	15	23	53
8	Th.	11	49	.....	7	54	8	Sa.	11	54	7	59
9	F.	0	25	12	32		9	S.	0	38	12	39
10	Sa.	1	14	13	22		10	M.	1	30	13	33
11	S.	2	16	14	24	●	11	Tu.	2	32	14	41
12	M.	3	30	15	37		12	W.	3	42	15	57
13	Tu.	4	36	16	49		13	Th.	4	45	17	02
14	W.	5	33	17	49		14	F.	5	37	17	56
15	Th.	6	23	18	39		15	Sa.	6	20	18	43
16	F.	7	04	19	20		16	S.	7	00	19	27
17	Sa.	7	40	19	58		17	M.	7	39	20	10
18	S.	8	15	20	35	●	18	Tu.	8	18	20	52
19	M.	8	49	21	13		19	W.	8	59	21	35
20	Tu.	9	25	21	53		20	Th.	9	44	22	21
21	W.	10	04	22	37		21	F.	10	33	23	11
22	Th.	10	48	23	26		22	Sa.	11	26	.....	.....
23	F.	11	37	.....	8	08	23	S.	0	07	12	24
24	Sa.	0	22	12	33		24	M.	1	11	13	29
25	S.	1	25	13	38		25	Tu.	2	21	14	39
26	M.	2	35	14	58		26	W.	3	34	15	53
27	Tu.	3	53	16	16		27	Th.	4	37	16	58
28	W.	5	01	17	22		28	F.	5	32	17	55
29	Th.	5	58	18	19		29	Sa.	6	20	18	46
30	F.	6	48	19	10		30	S.	7	04	19	32
							31	M.	7	45	20	13

## JUNE.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.	HIGH WATER.		LOW WATER.		Moon.	
		H. M.	H. M.	H. M.	H. M.		H. M.	H. M.	H. M.	H. M.		
1	Tu.	8	23	20	52	○	1	Th.	8	39	21	13
2	W.	9	00	21	31		2	F.	9	16	21	50
3	Th.	9	36	22	09		3	Sa.	9	52	22	25
4	F.	10	12	22	47		4	S.	10	27	22	59
5	Sa.	10	49	23	26		5	M.	11	03	23	32
6	S.	11	27	.....	7	33	6	Tu.	11	41	7	52
7	M.	0	06	12	08		7	W.	0	07	12	21
8	Tu.	0	49	12	53		8	Th.	0	47	13	06
9	W.	1	37	13	51		9	F.	1	35	14	04
10	Th.	2	34	15	00	●	10	Sa.	2	35	15	21
11	F.	3	39	16	11		11	S.	3	46	16	37
12	Sa.	4	40	17	16		12	M.	4	59	17	42
13	S.	5	37	18	12		13	Tu.	6	02	18	39
14	M.	6	28	19	02		14	W.	6	56	19	32
15	Tu.	7	14	19	50		15	Th.	7	47	20	23
16	W.	7	59	20	37		16	F.	8	36	21	12
17	Th.	8	45	21	24		17	Sa.	9	24	22	00
18	F.	9	33	22	12		18	S.	10	13	22	49
19	Sa.	10	23	23	02		19	M.	11	03	23	39
20	S.	11	16	23	56		20	Tu.	11	55	7	58
21	M.	.....	12	12	8	21	21	W.	0	30	12	50
22	Tu.	0	53	13	11		22	Th.	1	22	13	50
23	W.	1	53	14	15		23	F.	2	18	14	54
24	Th.	2	56	15	22		24	Sa.	3	19	15	57
25	F.	4	00	16	31		25	S.	4	21	16	57
26	Sa.	5	00	17	32		26	M.	5	16	17	53
27	S.	5	53	18	24		27	Tu.	6	08	18	45
28	M.	6	39	19	10		28	W.	6	57	19	33
29	Tu.	7	21	19	53		29	Th.	7	41	20	15
30	W.	8	01	20	34		30	F.	8	20	21	54
							31	Sa.	8	57	21	28

The TIME used is Eastern Standard, for the 75th Meridian. It is counted from 0 to 24 hours from midnight to midnight.

At Cap à la Roche, the lowest tides are not at the springs. The lowest Low Waters usually occur a few days after the Moon's quarters. See explanations at the foot of page 6, and table on page 8.

## TIDE TABLES.—CAP A LA ROCHE.—1920.

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## AUGUST.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.		Morn'g.	After'n.	Morn'g.	After'n.	
1	S.	9 32	21 59	5 25	17 57		10 19	22 30	6 24	18 42	
2	M.	10 06	22 29	6 05	18 33		10 54	23 01	7 06	19 19	
3	Tu.	10 39	22 58	6 44	19 09		11 31	23 39	7 50	19 58	
4	W.	11 13	23 29	7 24	19 46		.....	12 12	8 37	20 41	
5	Th.	11 49	.....	8 06	20 25		0 25	13 06	9 31	21 33	
6	F.	0 05	12 31	8 53	21 07		1 27	14 21	10 37	22 38	
7	Sa.	0 53	13 29	9 48	21 58		2 45	15 50	11 51	23 55	
8	S.	1 55	14 51	10 53	22 59		4 10	17 08	.....	12 58	
9	M.	3 14	16 10	.....	12 06		5 25	18 11	1 04	14 00	
10	Tu.	4 29	17 19	0 09	13 18		6 30	19 02	2 03	14 57	
11	W.	5 37	18 21	1 23	14 23		7 26	19 49	3 07	15 48	
12	Th.	6 39	19 16	2 30	15 20		8 15	20 33	4 01	16 35	
13	F.	7 34	20 06	3 28	16 12		8 59	21 16	4 51	17 19	
14	Sa.	8 23	20 54	4 20	17 00		9 42	21 58	5 39	18 01	
15	S.	9 11	21 40	5 09	17 44		10 25	22 40	6 24	18 42	
16	M.	9 58	22 24	5 57	18 26		11 09	23 23	7 08	19 22	
17	Tu.	10 44	23 07	6 44	19 07		11 55	.....	7 51	20 01	
18	W.	11 31	23 51	7 30	19 48		0 08	12 45	8 34	20 39	
19	Th.	.....	12 19	8 16	20 30		0 56	13 39	9 19	21 19	
20	F.	0 39	13 11	9 03	21 14		1 49	14 40	10 10	22 06	
21	Sa.	1 33	14 11	9 52	22 02	D	2 53	15 50	11 08	23 04	
22	S.	2 35	15 19	10 46	22 54		4 05	16 55	.....	12 09	
23	M.	3 40	16 25	11 46	23 51		5 10	17 53	0 10	13 05	
24	Tu.	4 44	17 25	.....	12 50		6 07	18 44	1 15	13 58	
25	W.	5 42	18 20	0 52	13 51		6 56	19 27	2 13	14 48	
26	Th.	6 35	19 09	1 49	14 45		7 39	20 03	3 05	15 34	
27	F.	7 21	19 51	2 42	15 31		8 16	20 34	3 52	16 16	O
28	Sa.	8 02	20 29	3 32	16 12		9 50	21 04	4 38	16 57	
29	S.	8 39	21 02	4 18	16 51		9 23	21 35	5 23	17 37	
30	M.	9 12	21 31	5 01	17 29		9 57	22 07	6 07	18 17	
31	Tu.	9 44	21 59	5 43	18 06						

## OCTOBER.

	H. M.	H. M.	H. M.	H. M.			H. M.	H. M.	H. M.	H. M.	
1	F.	10 36	22 44	6 53	19 00		11 57	.....	8 16	20 20	
2	Sa.	11 15	23 22	7 38	19 42		0 08	12 55	9 10	21 14	
3	S.	.....	12 01	8 26	20 28		1 09	14 02	10 06	22 17	
4	M.	0 10	12 58	9 18	21 22	C	2 21	15 18	11 06	23 23	
5	Tu.	1 13	14 10	10 18	22 26		3 44	16 31	.....	12 09	
6	W.	2 29	15 34	11 26	23 38		4 58	17 36	0 30	13 10	
7	Th.	3 54	16 52	.....	12 35		6 00	18 30	1 34	14 06	
8	F.	5 14	17 56	0 48	13 38		6 52	19 16	2 34	14 58	
9	Sa.	6 18	18 49	1 53	14 35		7 38	19 57	3 30	15 45	
10	S.	7 11	19 36	2 53	15 26		8 22	20 37	4 21	16 29	
11	M.	7 58	20 19	3 48	16 11		9 04	21 16	5 06	17 10	
12	Tu.	8 42	21 00	4 39	16 54		9 45	21 54	5 48	17 49	
13	W.	9 24	21 40	5 25	17 35		10 25	22 31	6 28	18 27	
14	Th.	10 05	22 19	6 07	18 14		11 05	23 09	7 07	19 04	
15	F.	10 46	22 58	6 48	18 52		11 46	23 49	7 45	19 42	
16	Sa.	11 28	23 38	7 28	19 29		12 30	23 28	8 23	20 22	
17	S.	.....	12 14	8 07	20 07		0 34	13 20	9 03	21 06	
18	M.	0 21	13 05	8 48	20 47		1 29	14 20	9 49	21 58	
19	Tu.	1 10	14 05	9 33	21 32		2 33	15 28	10 40	22 58	
20	W.	2 10	15 14	10 23	22 26		3 44	16 32	11 37	.....	
21	Th.	3 19	16 19	11 19	23 29		4 53	17 26	0 04	12 37	
22	F.	4 31	17 16	.....	12 20		5 51	18 11	1 09	13 31	
23	Sa.	5 34	18 05	0 38	13 20		6 38	18 50	2 07	14 21	
24	S.	6 27	18 48	1 43	14 14		7 20	19 27	3 01	15 10	
25	M.	7 11	19 26	2 39	15 01		8 00	20 03	3 53	15 58	
26	Tu.	7 48	20 02	3 29	15 46		8 39	20 41	4 44	16 46	
27	W.	8 24	20 37	4 17	16 29		9 19	21 23	5 34	17 34	
28	Th.	9 01	21 11	5 03	17 11		10 51	23 02	7 11	19 13	
29	F.	9 39	21 46	5 48	17 54		11 43	23 58	7 59	20 05	
30	Sa.	10 19	22 25	6 34	18 38						
31	S.	11 04	23 12	7 22	19 25						

The TIME used is Eastern Standard, for the 75th Meridian. It is counted from 0 to 24 hours, from midnight to midnight.

At Cap à la Roche, the lowest tides are not at the springs. The lowest Low Waters usually occur a few days after the Moon's quarters. See explanations at the foot of page 6, and table on page 8.

## APRIL.

Date.	Day.	H. W. SLACK. (Ebb begins.)	L. W. SLACK. (Flood begins.)	Moon.	Date.	Day.	H. W. SLACK. (Ebb begins.)	L. W. SLACK. (Flood begins.)	Moon.
1 Th.	4 12	16 31	10 49	23 23	1 Sa.	4 27	16 52	11 22	23 19
2 F.	4 53	17 17	11 37	23 57	2 S.	5 04	17 28	12 01	23 51
3 Sa.	5 30	17 50	... ...	12 19	3 M.	5 39	18 03	... ...	12 37
4 S.	6 06	18 28	0 28	12 56	4 Tu.	6 13	18 38	0 22	13 12
5 M.	6 41	19 05	0 58	13 31	5 W.	6 47	19 14	0 54	13 47
6 Tu.	7 15	19 41	1 27	14 06	6 Th.	7 22	19 52	1 27	14 23
7 W.	7 51	20 18	1 57	14 41	7 F.	7 59	20 32	2 03	15 00
8 Th.	8 29	20 57	2 29	15 21	8 Sa.	8 39	21 17	2 42	15 40
9 F.	9 11	21 44	3 04	16 08	9 S.	9 24	22 11	3 27	16 25
10 Sa.	9 59	22 43	3 48	17 02	10 M.	10 16	23 15	4 18	17 16
11 S.	10 58	23 53	4 43	18 03	11 Tu.	11 17	... ...	5 16	18 14
12 M.	... ...	12 08	5 49	19 09	12 W.	0 20	12 27	6 24	19 15
13 Tu.	1 05	13 23	7 03	20 17	13 Th.	1 19	13 35	7 36	20 11
14 W.	2 07	14 28	8 19	21 12	14 F.	2 11	14 35	8 45	21 02
15 Th.	3 00	15 19	9 25	21 56	15 Sa.	3 01	15 29	9 45	21 50
16 F.	3 44	16 03	10 15	22 35	16 S.	3 49	16 17	10 37	22 36
17 Sa.	4 23	16 45	11 01	23 13	17 M.	4 34	17 03	11 25	23 21
18 S.	5 01	17 26	11 46	23 50	18 Tu.	5 18	17 48	... ...	12 12
19 M.	5 40	18 07	... ...	12 30	19 W.	6 03	18 34	0 05	13 00
20 Tu.	6 20	18 50	0 28	13 13	20 Th.	6 49	19 22	0 51	13 49
21 W.	7 02	19 36	1 08	13 58	21 F.	7 37	20 13	1 40	14 39
22 Th.	7 48	20 27	1 51	14 46	22 Sa.	8 28	21 09	2 12	15 31
23 F.	8 39	21 23	2 40	15 40	23 S.	9 22	22 12	3 27	16 27
24 Sa.	9 36	22 27	3 35	16 41	24 M.	10 24	23 21	4 29	17 28
25 S.	10 43	23 38	4 37	17 51	25 Tu.	11 35	... ...	5 39	18 33
26 M.	11 58	... ...	5 50	19 09	26 W.	0 29	12 47	6 57	19 35
27 Tu.	0 55	13 17	7 15	20 21	27 Th.	1 31	13 56	8 13	20 31
28 W.	2 02	14 25	8 37	21 19	28 F.	2 27	14 56	9 18	21 21
29 Th.	2 59	15 23	9 44	22 06	29 Sa.	3 18	15 47	10 17	22 07
30 F.	3 47	16 11	10 36	22 45	30 S.	4 02	16 30	11 07	22 45
					31 M.	4 41	17 09	11 48	23 20

## JUNE.

Date.	Day.	H. M.	H. M.	H. M.	H. M.	Moon.	Date.	H. M.	H. M.	H. M.	H. M.	Moon.
1 Tu.	5 17	17 47	12 24	23 54	1 Sa.	5 36	18 24	... ...	12 45	... ...	13 17	○
2 W.	5 52	18 24	... ...	12 57	2 F.	6 12	18 41	0 10	13 17	... ...	13 47	
3 Th.	6 27	19 00	0 28	13 29	3 Sa.	6 47	19 17	0 46	13 47	... ...	14 47	
4 F.	7 01	19 35	1 04	14 02	4 S.	7 21	19 52	1 23	14 16	... ...	15 59	
5 Sa.	7 36	20 11	1 41	14 37	5 M.	7 56	20 28	2 02	14 47	... ...	15 21	
6 S.	8 13	20 50	2 20	15 14	6 Tu.	8 33	21 06	2 43	15 21	... ...	16 43	
7 M.	8 55	21 35	3 03	15 54	7 W.	9 14	21 47	3 27	15 59	... ...	17 33	
8 Tu.	9 41	22 28	3 51	16 38	8 Th.	10 02	22 37	4 15	16 43	... ...	18 28	
9 W.	10 38	23 25	4 46	17 25	9 F.	10 57	23 36	5 11	17 33	... ...	19 29	
10 Th.	11 41	... ...	5 47	18 16	10 Sa.	12 02	6 15	6 15	18 28	... ...	20 36	
11 F.	0 24	12 47	6 53	19 12	11 S.	13 15	7 28	7 28	19 29	... ...	21 42	
12 Sa.	1 24	13 52	8 03	20 09	12 M.	1 48	14 27	8 48	20 36	... ...	22 43	
13 S.	2 22	14 53	9 10	21 07	13 Tu.	2 53	15 31	9 59	21 42	... ...	23 40	
14 M.	3 17	15 50	10 12	22 04	14 W.	3 53	16 29	10 59	22 43	... ...	24 38	
15 Tu.	4 05	16 44	11 09	22 59	15 Th.	4 48	17 22	11 51	23 40	... ...	25 36	
16 W.	4 59	17 35	12 00	23 51	16 F.	5 38	18 10	... ...	12 38	... ...	26 33	
17 Th.	5 48	18 24	... ...	12 50	17 Sa.	6 24	18 56	0 32	13 22	... ...	27 29	
18 F.	6 36	19 12	0 41	13 39	18 S.	7 09	19 41	1 22	14 04	... ...	28 46	
19 Sa.	7 23	19 59	1 30	14 27	19 M.	7 56	20 27	2 11	14 46	... ...	29 29	
20 S.	8 11	20 48	2 20	15 14	20 Tu.	8 45	21 15	2 59	15 29	... ...	30 46	
21 M.	9 04	21 43	3 12	16 02	21 W.	9 36	22 07	3 48	16 14	... ...	31 33	
22 Tu.	10 03	22 43	4 09	16 52	22 Th.	10 29	23 02	4 40	17 01	... ...	32 40	D
23 W.	11 04	23 46	5 12	17 45	23 F.	11 27	... ...	5 42	17 51	... ...	33 44	
24 Th.	... ...	12 07	6 20	18 41	24 Sa.	0 03	12 32	6 54	18 44	... ...	34 43	
25 F.	0 51	13 13	7 32	19 39	25 S.	1 10	13 41	8 14	19 43	... ...	35 49	
26 Sa.	1 50	14 20	8 46	20 35	26 M.	2 11	14 47	9 27	20 49	... ...	36 59	
27 S.	2 44	15 17	9 52	21 27	27 Tu.	3 08	15 43	10 29	21 49	... ...	37 59	
28 M.	3 32	16 05	10 47	22 14	28 W.	3 57	16 29	11 18	22 39	... ...	38 54	
29 Tu.	4 17	16 47	11 33	22 55	29 Th.	4 39	17 07	11 55	23 21	... ...	39 54	
30 W.	4 58	17 26	12 12	23 33	30 F.	5 17	17 43	12 26	23 59	... ...	40 54	O
					31 Sa.	5 53	18 17	... ...	12 54	... ...	41 54	

The TIME used is Eastern Standard, for the 75th Meridian, as in the other St. Lawrence tables.

UPPER TRAVERSE.—To find the turn of the current in the Upper Traverse, subtract 22 minutes at High Water and subtract 5 minutes at Low Water from the time given in the above tables.

Effect of the Moon's DECLINATION.—When the Moon is in high declination, north or south of the equator, a few days occur when the turn of the current at Low Water may be 15 minutes earlier or later than given in the tables. At High Water, this variation is scarcely appreciable.

## AUGUST.

Date.	Day.	H. W. SLACK. (Ebb Begins.)		L. W. SLACK. (Flood Begins.)		Moon.	Date.	Day.	H. W. SLACK. (Ebb Begins.)		L. W. SLACK. (Flood Begins.)				
1	S.	H.	6 28	H.	18 50		1	W.	H.	7 15	H.	19 29	1	29	13 49
2	M.	H.	7 02	H.	19 23		2	Th.	H.	7 51	H.	20 05	2	05	14 21
3	Tu.	H.	7 37	H.	19 58		3	F.	H.	8 29	H.	20 46	2	44	14 57
4	W.	H.	8 13	H.	20 35		4	Sa.	H.	9 12	H.	21 35	3	29	15 39
5	Th.	H.	8 52	H.	21 17		5	S.	H.	10 07	H.	22 35	4	25	16 30
6	F.	H.	9 35	H.	22 06		6	M.	H.	11 17	H.	23 47	5	33	17 32
7	Sa.	H.	10 26	H.	23 05	©	7	Tu.	H.	12	H.	23 38	6	51	18 45
8	S.	H.	11 31	H.	.....		8	W.	H.	1	H.	05	8	15	20 06
9	M.	H.	0 14	H.	12 51		9	Th.	H.	2	H.	20	9	32	21 26
10	Tu.	H.	1 25	H.	14 08		10	F.	H.	3	H.	27	16	03	22 32
11	W.	H.	2 32	H.	15 15		11	Sa.	H.	4	H.	23	16	49	11 24
12	Th.	H.	3 35	H.	16 13		12	S.	H.	5	H.	09	17	31	..... 12 04
13	F.	H.	4 31	H.	17 05		13	M.	H.	5	H.	51	18	11	12 39
14	Sa.	H.	5 21	H.	17 50		14	Tu.	H.	6	H.	32	18	50	0 53
15	S.	H.	6 08	H.	18 34		15	W.	H.	7	H.	12	19	28	1 34
16	M.	H.	6 53	H.	19 17		16	Th.	H.	7	H.	52	20	07	2 14
17	Tu.	H.	7 36	H.	19 59		17	F.	H.	8	H.	33	20	47	2 55
18	W.	H.	8 18	H.	20 42		18	Sa.	H.	9	H.	16	21	31	3 38
19	Th.	H.	9 01	H.	21 27		19	S.	H.	10	H.	04	22	23	4 27
20	F.	H.	9 47	H.	22 17		20	M.	H.	11	H.	05	23	28	5 26
21	Sa.	H.	10 39	H.	23 14		21	Tu.	H.	12	H.	20	6	39	18 12
22	S.	H.	11 41	H.	.....		22	W.	H.	0	H.	47	13	38	8 00
23	M.	H.	0 18	H.	12 56		23	Th.	H.	1	H.	59	14	41	9 10
24	Tu.	H.	1 27	H.	14 17		24	F.	H.	2	H.	56	15	27	9 59
25	W.	H.	2 35	H.	15 20		25	Sa.	H.	3	H.	43	16	05	10 35
26	Th.	H.	3 32	H.	16 05		26	S.	H.	4	H.	23	16	40	11 07
27	F.	H.	4 20	H.	16 42		27	M.	H.	5	H.	00	17	14	11 37
28	Sa.	H.	4 59	H.	17 17		28	Tu.	H.	5	H.	36	17	47	23 53
29	S.	H.	5 34	H.	17 50		29	W.	H.	6	H.	11	18	21	12 08
30	M.	H.	6 08	H.	18 22		30	Th.	H.	6	H.	47	18	58	1 08
31	Tu.	H.	6 41	H.	18 55									13 16	

## OCTOBER.

	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.			
1	F.	H.	7 26	H.	19 39		1	Th.	H.	8 49	H.	21 05	3	05	15 07
2	Sa.	H.	8 09	H.	20 26		2	Tu.	H.	9 49	H.	22 07	4	03	16 08
3	S.	H.	8 59	H.	21 20		3	W.	H.	11 00	H.	23 20	5	11	17 16
4	M.	H.	9 59	H.	22 23		4	Th.	H.	12	H.	13	6	27	18 30
5	Tu.	H.	11 10	H.	23 33		5	F.	H.	0	H.	38	13	23	19 48
6	W.	H.	.....	H.	12 29		6	Sa.	H.	1	H.	50	14	25	8 42
7	Th.	H.	0 54	H.	13 47		7	S.	H.	2	H.	52	15	20	9 35
8	F.	H.	2 11	H.	14 52		8	M.	H.	3	H.	46	16	06	10 19
9	Sa.	H.	3 15	H.	15 44		9	Tu.	H.	4	H.	34	16	46	10 57
10	S.	H.	4 08	H.	16 27		10	W.	H.	5	H.	15	17	23	11 34
11	M.	H.	4 53	H.	17 07		11	Th.	H.	5	H.	52	17	59	0 20
12	Tu.	H.	5 32	H.	17 45		12	F.	H.	6	H.	28	18	35	12 10
13	W.	H.	6 10	H.	18 22		13	Sa.	H.	7	H.	03	19	12	1 33
14	Th.	H.	6 47	H.	18 58		14	S.	H.	7	H.	40	19	50	2 10
15	F.	H.	7 25	H.	19 35		15	M.	H.	8	H.	20	20	29	2 48
16	Sa.	H.	8 05	H.	20 13		16	Tu.	H.	9	H.	05	21	11	3 28
17	S.	H.	8 47	H.	20 54		17	W.	H.	9	H.	57	21	59	4 12
18	M.	H.	9 34	H.	21 41		18	Th.	H.	10	H.	54	22	58	5 01
19	Tu.	H.	10 30	H.	22 40		19	F.	H.	11	H.	53	.....	5 53	18 05
20	W.	H.	11 35	H.	23 50		20	Sa.	H.	0	H.	05	12	51	6 48
21	Th.	H.	.....	H.	12 45		21	S.	H.	1	H.	13	13	47	7 42
22	F.	H.	1 02	H.	13 47		22	M.	H.	2	H.	14	39	8 34	21 21
23	Sa.	H.	2 05	H.	14 38		23	Tu.	H.	3	H.	07	15	27	9 24
24	S.	H.	2 59	H.	15 22		24	W.	H.	3	H.	56	16	13	10 12
25	M.	H.	3 45	H.	16 02		25	Th.	H.	4	H.	43	16	57	10 59
26	Tu.	H.	4 27	H.	16 41		26	F.	H.	5	H.	28	17	40	11 45
27	W.	H.	5 08	H.	17 19		27	Sa.	H.	6	H.	13	18	24	0 25
28	Th.	H.	5 48	H.	17 58		28	S.	H.	6	H.	59	19	11	1 21
29	F.	H.	6 29	H.	18 39		29	M.	H.	7	H.	47	20	01	13 16
30	Sa.	H.	7 11	H.	19 23		30	Tu.	H.	8	H.	38	20	55	2 09
31	S.	H.	7 57	H.	20 11		31						3 00	14 58	

## NOVEMBER.

	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.			
1	M.	H.	8 49	H.	21 05		2	Tu.	H.	9 49	H.	22 07	4	03	16 08
2	Sa.	H.	9 49	H.	22 07		3	W.	H.	11 00	H.	23 20	5	11	17 16
3	S.	H.	11 00	H.	23 20		4	Th.	H.	12	H.	13	6	27	18 30
4	F.	H.	0	H.	13		5	F.	H.	0	H.	38	13	23	19 48
5	S.	H.	0	H.	38		6	Sa.	H.	1	H.	50	14	25	8 42
6	M.	H.	1	H.	50		7	S.	H.	2	H.	52	15	20	9 35
7	Tu.	H.	2	H.	52		8	W.	H.	3	H.	46	16	06	10 19
8	W.	H.	3	H.	46		9	S.	H.	4	H.	34	16	46	10 57
9	Th.	H.	4	H.	34		10	M.	H.	5	H.	15	17	23	11 34
10	F.	H.	5	H.	15		11	Sa.	H.	5	H.	59	17	59	0 20
11	S.	H.	5	H.	59		12	Tu.	H.	6	H.	05	12	51	1 33
12	M.	H.	6	H.	05		13	W.	H.	7	H.	28	18	35	2 10
13	Tu.	H.	7	H.	03		14	F.	H.	7	H.	40	19	50	3 10
14	W.	H.	7	H.	40		15	S.	H.	8	H.	20	20	29	2 48
15	Th.	H.	8	H.	20		16	M.	H.	9	H.	05	21	11	3 32
16	F.	H.	9	H.	05		17	Tu.	H.	9	H.	57	21	59	4 12
17	S.	H.	9	H.	57		18	W.	H.	10	H.	54	22	58	5 01
18	M.	H.	10	H.	54		19	S.	H.	11	H.	53	.....	5 53	18 05
19	Tu.	H.	11	H.	53		20	W.	H.	12	H.	05	12	51	6 48
20	W.	H.	12	H.	05		21	S.	H.	1	H.	13	47	7 42	20 21
21	Th.	H.	1	H.	13		22	M.	H.	2	H.	14	39	8 34	21 21
22	F.	H.	2	H.	14		23	Tu.	H.	3	H.	07	15	27	9 24
23	S.	H.	3	H.	07		24	W.	H.	3	H.	56	16	13	10 12
24	S.	H.	3	H.	56		25	Th.	H.	4	H.	43	16	57	10 59
25	M.	H.	4	H.	43		26	F.	H.	5	H.	28	17	40	11 45
26	Tu.	H.	5	H.	28		27	Sa.	H.	6	H.	13	18	24	0 25
27	W.	H.	6	H.	13		28	S.	H.	6	H.	59	19	11	1 21
28	Th.	H.	6	H.	59		29	M.	H.	7	H.	47	20	01	13 16
29	F.	H.	7	H.	47		30	Tu.	H.	8	H.	38	20	55	3 00
30	S.	H.	7	H.	38		31							14 58	

The TIME used is Eastern Standard, for the 75th Meridian, as in the other St. Lawrence tables.

UPPER TRAVERSE.—To find the turn of the current in the Upper Traverse, subtract 22 minutes at High Water and subtract 5 minutes at Low Water from the time given in the above tables.

Effect of the Moon's DECLINATION.—When the Moon is in high declination, north or south of the equator, a few days occur when the turn of the current at Low Water may be 15 minutes earlier or later than given in the tables. At High Water, this variation is scarcely appreciable.

## TIDE TABLES.—FATHER POINT.—1920.

Date	Day	APRIL								MAY									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H. M. FT.	Time.	H. M. FT.	Time.	H. M. FT.	Time.	H. M. FT.	Time.	H. M. FT.	Time.	H. M. FT.	Time.	H. M. FT.	Time.	H. M. FT.		
1	Th.	0:37	11·7	12:56	12·4	6:52	2·4	19:26	2·2	1	Sa.	0:52	12·9	13:17	11·8	7:25	2·4	19:22	2·9
2	F.	1:18	12·5	12:36	12·7	7:40	1·7	20:00	2·0	2	Su.	1:29	13·5	13:53	11·8	8:04	2·1	19:54	2·7
3	Sa.	1:55	13·2	14:15	12·7	8:22	1·4	20:31	1·9	3	M.	2:04	13·9	14:28	11·8	8:40	2·0	20:25	2·7
4	Su.	2:31	13·7	14:53	12·6	8:59	1·2	21:01	1·9	4	Tu.	2:38	14·1	15:03	11·6	9:15	2·0	20:57	2·8
5	M.	3:06	13·8	15:30	12·1	9:34	1·4	21:30	2·1	5	W.	3:12	14·0	15:39	11·3	9:50	2·3	21:30	3·1
6	Tu.	3:40	13·6	16:06	11·6	10:08	1·8	22:00	2·5	6	Th.	3:47	13·6	16:17	10·8	10:26	2·7	22:06	3·5
7	W.	4:16	13·2	16:43	10·8	10:44	2·5	22:32	3·1	7	F.	4:24	13·0	16:57	10·3	11:03	3·2	22:45	4·1
8	Th.	4:54	12·6	17:22	10·0	11:24	3·1	23:07	3·8	8	Sa.	5:04	12·3	17:42	9·8	11:43	3·7	23:30	4·6
9	F.	5:36	11·8	18:09	9·3	12:11	3·9	23:51	4·5	9	Su.	5:49	11·6	18:36	9·3	.....	.....	12:28	4·2
10	Sa.	6:24	11·1	19:08	8·8	.....	.....	13:05	4·5	10	M.	6:41	10·9	19:40	9·2	0:21	5·1	13:19	4·5
11	Su.	7:23	10·5	20:18	8·6	0:46	5·1	14:06	4·8	11	Tu.	7:42	10·5	20:45	9·6	1:19	5·3	14:17	4·6
12	M.	8:33	10·1	21:30	8·8	1:52	5·4	15:12	4·9	12	W.	8:52	10·3	21:44	10·2	2:27	5·3	15:18	4·5
13	Tu.	9:48	10·1	22:32	9·5	3:06	5·4	16:20	4·6	13	Th.	10:00	10·5	22:36	11·0	3:39	4·9	16:14	4·1
14	W.	10:53	10·5	23:25	10·4	4:22	5·0	17:15	4·1	14	F.	11:00	10·8	23:26	12·1	4:48	4·2	17:05	3·5
15	Th.	11:44	11·1	.....	.....	5:28	4·1	17:59	3·4	15	Sa.	11:54	11·4	.....	.....	5:48	3·4	17:53	3·0
16	F.	0:09	11·5	12:28	11·8	6:18	3·1	18:38	2·7	16	Su.	0:14	13·3	12:42	12·0	6:40	2·4	18:39	2·4
17	Sa.	0:48	12·7	13:10	12·4	7:04	2·1	19:16	2·0	17	M.	0:59	14·4	13:28	12·5	7:28	1·5	19:24	1·8
18	Su.	1:26	13·7	13:51	12·9	7:49	1·3	19:53	1·4	18	Tu.	1:43	15·3	14:13	12·8	8:15	0·9	20:08	1·4
19	M.	2:05	14·6	14:32	13·1	8:33	0·6	20:31	1·1	19	W.	2:28	15·8	14:59	12·8	9:03	0·6	20:54	1·3
20	Tu.	2:45	15·1	15:15	12·9	9:16	0·4	21:11	1·1	20	Th.	3:14	15·8	15:47	12·5	9:52	0·7	21:43	1·6
21	W.	3:27	15·2	16:01	12·4	10:01	0·6	21:54	1·5	21	F.	4:02	15·4	16:38	12·0	10:42	1·1	22:35	2·2
22	Th.	4:13	14·8	16:52	11·7	10:49	1·1	22:43	2·1	22	Sa.	4:53	14·5	17:34	11·4	11:34	1·7	23:30	2·8
23	F.	5:04	14·1	17:48	10·9	11:43	1·9	23:38	2·9	23	Su.	5:47	13·5	18:37	11·0	.....	.....	12:30	2·4
24	Sa.	6:01	13·1	18:52	10·3	.....	.....	12:44	2·6	24	M.	6:49	12·5	19:46	10·8	0:32	3·5	13:31	3·0
25	Su.	7:08	12·1	20:03	9·9	0:40	3·6	13:54	3·2	25	Tu.	8:00	11·6	20:54	10·9	1:42	4·1	14:36	3·5
26	M.	8:23	11·5	21:20	10·1	1:53	4·1	15:12	3·5	26	W.	9:12	11·0	21:56	11·2	3:00	4·3	15:38	3·8
27	Tu.	9:42	11·2	22:27	10·6	3:18	4·3	16:24	3·6	27	Th.	10:21	10·7	22:52	11·7	4:16	4·3	16:34	4·0
28	W.	10:50	11·2	23:24	11·3	4:40	4·0	17:22	3·5	28	F.	11:21	10·7	23:43	12·3	5:21	4·0	17:24	4·0
29	Th.	11:48	11·3	.....	.....	5:47	3·5	18:09	3·2	29	Sa.	.....	.....	12:12	10·7	6:20	3·7	18:10	4·0
30	F.	0:12	12·1	12:36	11·6	6:39	2·9	18:48	3·1	30	Su.	0:27	12·9	12:55	10·9	7:10	3·3	18:48	3·8
										31	M.	1:06	13·4	13:34	11·0	7:51	3·0	19:23	3·6

The TIME used is Eastern Standard, for the 75th Meridian; five hours slower than Greenwich Mean Time.

The HEIGHT is measured from the Low-water datum, also used for the Hydrographic Survey chart.

The Time of the tide in these tables may be taken as correct also for South-west point, Anticosti, in Atlantic Standard time.

TIDAL DIFFERENCES for the St. Lawrence estuary and the Gulf are given on pages 7 and 11, and for the turn of the TIDAL STREAMS on the St. Lawrence and in other straits on pages 58, 62 and 63.

Date.	Day.	JUNE.								Date.	Day.	JULY.							
		HIGH WATER.		LOW WATER.		HIGH WATER.		LOW WATER.				HIGH WATER.		LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.		
1	Tu.	1:42	13·9	14:12	11·2	8:27	2·7	19:57	3·5	1	Th.	2:01	13·8	14:29	11·0	8:48	2·9	20:13	3·6
2	W.	2:17	14·0	14:49	11·2	9:00	2·7	20:31	3·3	2	F.	2:37	13·9	15:06	11·2	9:20	2·7	20:49	3·4
3	Th.	2:52	14·1	15:25	11·1	9:32	2·7	21:07	3·5	3	Sa.	3:12	13·8	15:42	11·3	9:50	2·7	21:26	3·4
4	F.	3:26	13·8	16:00	11·0	10:05	2·8	21:44	3·7	4	Su.	3:46	13·5	16:17	11·3	10:19	2·8	22:05	3·5
5	Sa.	4:01	13·3	16:36	10·7	10:40	3·1	22:23	4·0	5	M.	4:21	13·1	16:50	11·2	10:50	2·9	22:46	3·6
6	Su.	4:38	12·8	17:15	10·4	11:17	3·5	23:06	4·3	6	Tu.	4:58	12·6	17:31	11·2	11:24	3·1	23:30	3·9
7	M.	5:20	12·1	18:00	10·2	11:57	3·8	23:54	4·7	7	W.	5:39	11·9	18:12	11·2	... .	...	12:02	3·3
8	Tu.	6:06	11·5	18:53	10·2	... .	...	12:41	4·0	8	Th.	6:27	11·3	19:02	11·3	0:18	4·1	12:46	3·5
9	W.	7:03	11·0	19:50	10·5	0:49	4·9	13:28	4·1	9	F.	7:22	10·7	20:01	11·6	1:14	4·3	13:36	3·7
10	Th.	8:06	10·5	20:49	10·9	1:50	4·9	14:19	4·1	10	Sa.	8:27	10·3	21:06	12·0	2:18	4·5	14:31	3·8
11	F.	9:12	10·4	21:49	11·7	2:56	4·8	15:15	3·9	11	Su.	9:40	10·1	22:13	12·6	3:31	4·4	15:32	3·8
12	Sa.	10:17	10·6	22:47	12·6	4:06	4·4	16:12	3·8	12	M.	10:52	10·3	23:18	13·4	4:51	4·0	16:39	3·6
13	Su.	11:18	10·9	23:42	13·6	5:13	3·8	17:10	3·3	13	Tu.	11:56	10·8	...	...	6:02	3·3	17:45	3·1
14	M.	.....	12:15	11·4	6:15	2·9	18:07	2·8	14	W.	0:18	14·2	12:54	11·5	7:02	2·4	18:46	2·5	
15	Tu.	0:34	14·6	13:09	12·0	7:12	2·0	19:02	2·2	15	Th.	1:13	15·0	13:47	12·1	7:54	1·6	19:43	1·8
16	W.	1:24	15·5	14:00	12·4	8:03	1·3	19:54	1·7	16	F.	2:02	15·5	14:35	12·7	8:41	1·0	20:35	1·4
17	Th.	2:13	15·9	14:49	12·7	8:53	0·9	20:44	1·5	17	Sa.	2:49	15·6	15:21	13·0	9:25	0·8	21:25	1·2
18	F.	3:01	16·0	15:37	12·7	9:42	0·8	21:33	1·6	18	Su.	3:34	15·3	16:06	13·0	10:07	0·8	22:14	1·4
19	Sa.	3:48	15·6	16:24	12·5	10:30	1·0	22:23	2·0	19	M.	4:21	14·6	16:52	12·8	10:49	1·3	23:02	2·0
20	Su.	4:36	14·8	17:13	12·1	11:17	1·5	23:15	2·5	20	Tu.	5:10	13·6	17:40	12·5	11:32	1·9	23:51	2·7
21	M.	5:29	13·7	18:08	11·8	... .	...	12:05	2·1	21	W.	6:01	12·5	18:32	12·0	... .	...	12:17	2·7
22	Tu.	6:28	12·6	19:08	11·6	0:12	3·2	12:55	2·8	22	Th.	6:54	11·3	19:27	11·6	0:43	3·5	13:04	3·4
23	W.	7:29	11·6	20:11	11·4	1:15	3·8	13:48	3·5	23	F.	7:52	10·3	20:28	11·3	1:45	4·2	13:54	4·1
24	Th.	8:32	10·7	21:16	11·4	2:23	4·3	14:44	4·0	24	Sa.	8:57	9·6	21:35	11·3	2:57	4·8	14:47	4·6
25	F.	9:38	10·1	22:15	11·7	3:35	4·6	15:42	4·4	25	Su.	10:06	9·2	22:36	11·5	4:17	5·0	15:46	5·0
26	Sa.	10:45	9·9	23:09	12·0	4:49	4·6	16:38	4·7	26	M.	11:12	9·2	23:33	11·8	5:30	4·9	16:52	5·1
27	Su.	11:42	9·9	23:57	12·5	5:54	4·4	17:30	4·6	27	Tu.	.....	...	12:08	9·5	6:32	4·5	17:52	4·8
28	M.	.....	12:30	10·1	6:50	4·0	18:17	4·5	28	W.	0:22	12·3	12:54	10·0	7:21	4·0	18:42	4·4	
29	Tu.	0:42	13·0	13:12	10·5	7:36	3·7	18:58	4·2	29	Th.	1:04	12·8	13:32	10·5	7:58	3·4	19:24	4·0
30	W.	1:23	13·4	13:51	10·8	8:15	3·3	19:36	3·9	30	Sa.	2:18	13·5	14:42	11·5	8:57	2·6	20:38	3·9
31	Sa.	.....	...	...	...	...	...	...	...	31	Sa.	.....	...	...	...	...	...	...	...

The TIME used is Eastern Standard, for the 75th Meridian; five hours slower than Greenwich Mean Time.

The HEIGHT is measured from the Low Water datum, also used for the Hydrographic Survey chart.

The Time of the tide in these tables may be taken as correct also for South-west Point, Anticosti, in Atlantic Standard time.

TIDAL DIFFERENCES for the St. Lawrence estuary and the Gulf are given on pages 7 and 11, and for the turn of the TIDAL STREAMS on the St. Lawrence and in other straits, on pages 58, 62 and 63.

## TIDE TABLES.—FATHER POINT.—1920.

Date.	Day.	AUGUST.								SEPTEMBER.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	H. M.	FT.	Time.	H't.	H. M.	FT.	Time.	H't.	H. M.	FT.	Time.	H't.	H. M.	FT.		
1	Mo.	2:53	13·6	15:15	11·8	9:24	2·3	21:13	2·7	1	W.	3:40	13·2	15:54	13·2	9:52	1·8	22:08	1·7
2	M.	3:27	13·6	15:48	12·1	9:52	2·2	21:48	2·6	2	Th.	4:16	12·8	16:30	13·3	10:24	2·0	22:47	2·0
3	Tu.	4:02	13·2	16:23	12·2	10:21	2·3	22:25	2·6	3	F.	4:54	12·1	17:11	13·1	11:00	2·2	23:32	2·5
4	W.	4:38	12·7	17:00	12·2	10:52	2·5	23:06	2·9	4	Sa.	5:37	11·3	18:00	12·7	11:42	2·7	.....	....
5	Th.	5:17	12·1	17:42	12·1	11:27	2·7	23:54	3·2	5	Mo.	6:32	10·4	19:00	12·2	0:28	3·2	12:33	3·3
6	F.	6:00	11·4	18:31	12·0	.....	.....	12:08	3·0	6	M.	7:42	9·7	20:12	11·9	1:36	3·8	13:35	3·8
7	Sa.	6:51	10·6	19:30	12·0	0:51	3·7	12:58	3·3	7	Tu.	9:03	9·4	21:30	11·8	2:54	4·1	14:48	4·0
8	Mo.	7:56	10·0	20:39	12·0	1:56	4·0	13:58	3·7	8	W.	10:24	9·7	22:45	12·2	4:18	4·0	16:09	4·0
9	M.	9:16	9·6	21:50	12·2	3:10	4·3	15:05	3·9	9	Th.	11:32	10·4	23:52	12·8	5:35	3·5	17:29	3·3
10	Tu.	10:33	9·8	22:57	12·8	4:32	4·0	16:16	3·8	10	F.	.....	.....	12:28	11·3	6:37	2·7	18:35	2·6
11	W.	11:40	10·4	.....	.....	5:48	3·4	17:32	3·3	11	Sa.	0:48	13·4	13:14	12·3	7:27	2·1	19:28	1·7
12	Th.	0:00	13·5	12:38	11·2	6:54	2·6	18:38	2·5	12	Mo.	1:34	13·8	13:56	13·2	8:07	1·6	20:14	1·1
13	F.	0:56	14·3	13:30	12·1	7:47	1·8	19:35	1·7	13	M.	2:16	14·0	14:36	13·7	8:42	1·3	20:56	0·9
14	Sa.	1:46	14·8	14:15	12·9	8:29	1·2	20:24	1·1	14	Tu.	2:57	13·8	15:15	14·0	9:16	1·4	21:37	1·0
15	Mo.	2:33	14·9	14:59	13·3	9:07	0·9	21:10	0·9	15	W.	3:37	13·3	15:53	13·8	9:49	1·6	22:17	1·4
16	M.	3:18	14·7	15:42	13·6	9:44	0·9	21:55	1·0	16	Th.	4:17	12·6	16:32	13·4	10:23	2·1	22:58	2·2
17	Tu.	4:01	14·1	16:24	13·4	10:20	1·3	22:39	1·5	17	F.	4:58	11·7	17:12	12·8	10:59	2·8	23:41	3·1
18	W.	4:43	13·2	17:07	13·1	10:57	1·9	23:24	2·3	18	Sa.	5:41	10·7	17:56	12·0	11:37	3·6	.....	....
19	Th.	5:26	12·1	17:52	12·5	11:35	2·6	.....	....	19	Mo.	6:29	9·8	18:48	11·3	0:30	4·0	12:19	4·3
20	F.	6:12	11·0	18:42	11·8	0:11	3·2	12:16	3·4	20	M.	7:30	9·0	19:53	10·7	1:29	4·7	13:09	5·0
21	Sa.	7:04	9·9	19:39	11·2	1:06	4·1	13:01	4·2	21	Tu.	8:45	8·6	21:12	10·3	2:42	5·2	14:15	5·4
22	Mo.	8:06	9·2	20:43	10·9	2:12	4·8	13:54	4·8	22	W.	10:03	8·8	22:24	10·5	4:03	5·3	15:34	5·6
23	M.	9:21	8·7	21:52	10·8	3:30	5·2	14:56	5·2	23	Th.	11:06	9·3	23:21	10·9	5:13	5·0	16:48	5·2
24	Tu.	10:42	8·8	23:00	11·0	4:52	5·2	16:10	5·3	24	F.	11:52	10·0	.....	.....	6:02	4·5	17:48	4·5
25	W.	11:45	9·2	23:57	11·5	6:01	4·8	17:22	5·1	25	Sa.	0:08	11·4	12:30	10·9	6:38	3·8	18:36	3·7
26	Th.	.....	....	12:30	9·9	6:51	4·2	18:19	4·5	26	Mo.	0:48	12·0	13:05	11·8	7:10	3·2	19:18	2·8
27	F.	0:45	12·1	13:07	10·6	7:27	3·6	19:05	3·8	27	M.	1:25	12·7	13:39	12·8	7:40	2·5	19:56	2·0
28	Sa.	1:24	12·6	13:42	11·4	7:57	3·0	19:44	3·0	28	Tu.	2:01	13·0	14:12	13·5	8:11	2·0	20:33	1·5
29	Mo.	1:59	13·1	14:15	12·1	8:26	2·5	20:21	2·4	29	W.	2:36	13·2	14:46	14·0	8:43	1·7	21:11	1·1
30	M.	2:33	13·4	14:47	12·6	8:54	2·1	20:57	1·9	30	Th.	3:12	13·1	15:23	14·3	9:19	1·6	21:50	1·2
31	Tu.	3:06	13·4	15:20	13·0	9:22	1·8	21:32	1·7										

The TIME used is Eastern Standard, for the 75th Meridian; five hours slower than Greenwich Mean Time.

The HEIGHT is measured from the Low-water datum, also used for the Hydrographic Survey chart.

The Time of the tide in these tables may be taken as correct also for South-west Point, Anticosti, in Atlantic Standard time.

TIDAL DIFFERENCES for the St. Lawrence estuary and the Gulf are given on pages 7 and 11, and for the turn of the TIDAL STREAMS on the St. Lawrence and in other straits, on pages 58, 62 and 63.

## TIDE TABLES.—FATHER POINT.—1920.

27

Date.	Day.	OCTOBER.								NOVEMBER.								
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.				
		Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	
1	F.	3:51	12·7	16:04	14·2	9:58	1·7	22:34	1·5	1	M.	5:14	11·3	17:30	13·6	11:10	2·7	....
2	Sa.	4:34	12·1	16:51	13·8	10:40	2·1	23:25	2·1	2	Tu.	6:14	10·7	18:32	12·7	0:06	2·5	12:11
3	S.	5:24	11·2	17:45	13·2	11:26	2·7	.....	.....	3	W.	7:25	10·4	19:45	11·9	1:14	3·1	13:19
4	M.	6:24	10·4	18:48	12·5	0:22	2·8	12:19	3·4	4	Th.	8:38	10·4	21:03	11·4	2:30	3·5	14:33
5	Tu.	7:35	9·8	19:58	11·8	1:28	3·5	13:24	4·0	5	F.	9:48	10·7	22:15	11·3	3:42	3·7	15:51
6	W.	8:54	9·7	21:19	11·6	2:44	3·9	14:43	4·2	6	Sa.	10:50	11·3	23:17	11·3	4:45	3·7	17:06
7	Th.	10:12	10·1	22:36	11·7	4:06	3·9	16:08	4·0	7	S.	11:45	12·1	....	....	5:38	3·5	18:10
8	F.	11:17	10·8	23:40	12·1	5:21	3·5	17:24	3·4	8	M.	0:11	11·5	12:31	12·9	6:22	3·3	19:03
9	Sa.	.....	12:09	11·8	6:16	3·0	18:26	2·7	9	Tu.	0:59	11·8	13:11	13·5	7:00	3·1	19:45	
10	S.	0:33	12·5	12:52	12·7	6:59	2·6	19:19	2·0	10	W.	1:40	11·9	13:48	14·0	7:37	2·9	20:23
11	M.	1:18	12·8	13:32	13·5	7:36	2·3	20:03	1·5	11	Th.	2:17	11·9	14:24	14·3	8:13	2·8	21:00
12	Tu.	1:57	13·0	14:10	14·0	8:10	2·1	20:40	1·3	12	F.	2:53	11·8	15:00	14·2	8:48	2·9	21:36
13	W.	2:35	12·9	14:47	14·2	8:42	2·1	21:16	1·4	13	Sa.	3:28	11·5	15:37	13·9	9:22	3·1	22:13
14	Th.	3:12	12·6	15:23	14·1	9:13	2·2	21:53	1·8	14	S.	4:05	11·1	16:15	13·3	9:57	3·4	22:51
15	F.	3:50	12·0	16:00	13·8	9:45	2·6	22:31	2·4	15	M.	4:45	10·7	16:54	12·6	10:35	3·9	23:31
16	Sa.	4:30	11·3	16:38	13·1	10:20	3·1	23:12	3·1	16	Tu.	5:30	10·2	17:36	11·8	11:17	4·5	....
17	S.	5:12	10·6	17:19	12·3	10:58	3·8	23:58	3·8	17	W.	6:22	9·8	18:24	11·6	0:15	4·1	12:08
18	M.	5:59	9·9	18:06	11·5	11:43	4·9	.....	....	18	Th.	7:19	9·6	19:23	10·5	1:04	4·5	13:05
19	Tu.	6:55	9·2	19:05	10·8	0:52	4·5	12:37	5·1	19	F.	8:18	9·7	20:30	10·2	1:56	4·6	14:08
20	W.	8:00	9·0	20:15	10·3	1:53	4·9	13:39	5·5	20	Sa.	9:16	10·1	21:38	10·2	2:51	4·7	15:15
21	Th.	9:10	9·1	21:27	10·2	2:58	5·1	14:49	5·6	21	S.	10:12	10·8	22:39	10·5	3:45	4·5	16:24
22	F.	10:12	9·7	22:30	10·5	3:58	5·0	16:02	5·3	22	M.	11:04	11·7	23:32	10·9	4:37	4·1	17:24
23	Sa.	11:03	10·4	23:24	10·9	4:53	4·6	17:06	4·6	23	Tu.	11:52	12·8	....	....	5:27	3·6	18:17
24	S.	11:47	11·3	.....	.....	5:40	4·1	18:00	3·8	24	W.	0:21	11·4	12:38	13·8	6:15	3·0	19:06
25	M.	0:10	11·5	12:27	12·3	6:20	3·5	18:46	2·9	25	Th.	1:08	12·0	13:22	14·8	7:02	2·5	19:53
26	Tu.	0:52	12·1	13:06	13·4	6:57	2·8	19:29	2·0	26	F.	1:53	12·4	14:05	15·4	7:48	1·9	20:38
27	W.	1:33	12·6	13:44	14·3	7:33	2·2	20:11	1·3	27	Sa.	2:38	12·6	14:49	15·7	8:33	1·6	21:24
28	Th.	2:13	12·9	14:23	14·9	8:10	1·8	20:52	1·0	28	S.	3:24	12·6	15:36	15·6	9:19	1·6	22:12
29	F.	2:54	12·9	15:04	15·2	8:49	1·6	21:34	0·9	29	M.	4:12	12·2	16:26	14·9	10:08	1·9	23:03
30	Sa.	3:36	12·6	15:48	15·0	9:31	1·7	22:19	1·2	30	Tu.	5:03	11·8	17:20	13·9	11:01	2·4	23:58
31	S.	4:22	12·1	16:36	14·5	10:17	2·1	23:08	1·8									

The TIME used is Eastern Standard, for the 75th Meridian; five hours slower than Greenwich Mean Time.

The HEIGHT is measured from the Low-water datum, also used for the Hydrographic Survey chart.

The Time of the tide in these tables may be taken as correct also for South-west Point, Anticosti, in Atlantic Standard time.

TIDAL DIFFERENCES for the St. Lawrence estuary and the Gulf are given on pages 7 and 11, and for the turn of the TIDAL STREAMS on the St. Lawrence and in other straits, on pages 58, 62 and 63.

## TIDE TABLES.—ST. PAUL ISLAND, N.S.—1920.

## JANUARY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.		Morn'g.	After'n.	Morn'g.	After'n.	
1	Th.	4	32	16	21		10	02	22	55	
2	F.	5	47	17	21		11	12			
3	Sa.	6	52	18	19		0	03	12	17	
4	Su.	7	48	19	14		1	04	13	16	
5	M.	8	37	20	05		1	58	14	08	
6	Tu.	9	22	20	54		2	46	14	56	
7	W.	10	06	21	42		3	32	15	42	
8	Th.	10	49	22	32		4	17	16	27	
9	F.	11	31	23	25		5	01	17	13	
10	Sa.	.....	12	14			5	45	18	01	
11	Su.	0	20	12	56		6	30	17	55	
12	M.	1	18	13	39		7	17	19	48	
13	Tu.	2	22	14	24		8	07	20	50	
14	W.	3	31	15	12		9	05	21	56	
15	Th.	4	43	16	03		10	09	23	00	
16	F.	5	49	16	58		11	12			
17	Sa.	6	48	17	51		0	00	12	09	
18	Su.	7	36	18	39		0	52	12	58	
19	M.	8	16	19	22		1	36	13	40	
20	Tu.	8	59	20	02		2	16	14	20	
21	W.	9	22	20	41		2	53	14	58	
22	Th.	9	53	21	21		3	28	15	34	
23	F.	10	24	22	02		4	02	16	09	
24	Sa.	10	56	22	46		4	35	16	45	
25	Su.	11	30	23	35		5	09	17	24	
26	M.	.....	12	08			5	46	18	06	
27	Tu.	0	30	12	51		6	27	18	56	
28	W.	1	31	13	39		7	14	20	00	
29	Th.	2	41	14	32		8	14	21	16	
30	F.	4	02	15	34		9	36	22	36	
31	Sa.	5	21	16	45		10	55	23	46	

## MARCH.

1	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.
2	Tu.	7	13	18	53	0	42	12	54		
3	W.	7	58	19	49	1	36	13	42		
4	Th.	8	37	20	38	2	19	14	24		
5	F.	9	13	21	23	2	58	15	05		
6	Sa.	9	46	22	06	3	35	15	44		
7	Su.	10	18	22	48	4	11	16	22		
8	M.	10	49	23	31	4	46	17	00		
9	Tu.	11	19	.....	5	20	17	39			
10	W.	0	15	11	51	5	54	18	20		
11	Th.	1	02	12	27	6	29	19	06		
12	F.	1	57	13	11	7	08	20	06		
13	Sa.	3	05	14	08	8	06	21	22		
14	Su.	4	21	15	18	9	30	22	40		
15	M.	5	26	16	31	10	57	23	45		
16	Tu.	6	18	17	40	.....	12	00			
17	W.	7	00	18	40	0	38	12	50		
18	Th.	7	36	19	29	1	22	13	30		
19	F.	8	09	20	14	2	00	14	08		
20	Sa.	8	41	20	58	2	36	14	45		
21	Su.	9	13	21	42	3	11	15	22		
22	M.	9	46	22	27	3	46	16	01		
23	Tu.	10	23	23	15	4	22	16	42		
24	W.	11	04	.....	.....	5	01	17	28		
25	Th.	0	12	11	51	5	48	18	21		
26	F.	1	17	12	45	6	43	19	24		
27	Sa.	2	27	13	48	7	46	20	38		
28	Su.	3	39	15	01	9	00	22	02		
29	M.	4	51	16	23	10	30	23	24		
30	Tu.	5	55	17	42	11	44	.....	.....		
31	W.	6	46	18	47	0	30	12	38		

## APRIL.

1	Th.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.
2	F.	8	04	20	28	1	56	14	04		
3	Sa.	8	36	21	10	2	32	14	42		
4	Su.	9	07	21	49	3	06	15	19		
5	M.	9	37	22	28	3	39	15	55		
6	Tu.	10	06	23	08	4	11	16	31		
7	W.	10	36	23	50	4	44	17	08		
8	Th.	11	08	.....	.....	5	18	17	46		
9	F.	0	34	11	44	5	54	18	28		
10	Sa.	1	22	12	28	6	34	19	19		
11	Su.	2	18	13	25	7	28	20	26		
12	M.	3	21	14	36	8	45	21	42		
13	Tu.	4	26	15	58	10	12	22	55		
14	W.	5	21	17	12	11	20	23	54		
15	Th.	6	07	18	15	.....	12	13			
16	F.	6	46	19	08	0	42	12	58		
17	Sa.	7	24	19	55	1	23	13	40		
18	Su.	8	01	20	41	2	03	14	21		
19	M.	8	37	21	26	2	42	15	02		
20	Tu.	9	14	22	14	3	21	15	44		
21	W.	9	53	23	06	4	01	16	29		
22	Th.	10	38	.....	.....	4	44	17	17		
23	F.	0	03	11	30	5	33	18	09		
24	Sa.	1	04	12	31	6	30	19	08		
25	Su.	2	10	13	40	7	36	20	24		
26	M.	3	18	14	58	8	54	21	45		
27	Tu.	4	23	16	23	10	18	23	01		
28	W.	5	20	17	36	11	25	.....	.....		
29	Th.	6	09	18	37	0	00	12	18		
30	F.	6	51	19	29	0	48	13	02		

The TIME used is Atlantic Standard, for the 60th h Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

TIDAL DIFFERENCES for the open Gulf of St. Lawrence, the Miramichi region and Cabot strait, are given on pages 10 and 11; and tables showing the time and strength of the TIDAL STREAMS in Northumberland strait, Bras d'Or and Grand Narrows are given on pages 62 and 63.

## MAY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Sa.	7 27	20 15	1 28	13 42	○
2	S.	8 00	20 57	2 04	14 20	
3	M.	8 31	21 36	2 38	14 57	
4	Tu.	9 01	22 13	3 11	15 33	
5	W.	9 30	22 49	3 43	16 08	
6	Th.	10 00	23 27	4 16	16 43	
7	F.	10 33	.....	4 51	17 20	
8	Sa.	0 07	11 12	5 29	17 59	
9	S.	0 51	11 58	6 11	18 42	
10	M.	1 39	12 56	7 01	19 33	●
11	Tu.	2 32	14 03	8 06	20 39	●
12	W.	3 27	15 18	9 24	21 54	●
13	Th.	4 23	16 36	10 36	23 00	●
14	F.	5 15	17 46	11 36	23 58	●
15	Sa.	6 01	18 45	.....	12 27	●
16	S.	6 44	19 38	0 48	13 14	●
17	M.	7 26	20 29	1 34	14 00	●
18	Tu.	8 07	21 19	2 18	14 45	●
19	W.	8 50	22 08	3 01	15 30	●
20	Th.	9 37	22 59	3 45	16 16	●
21	F.	10 27	23 52	4 31	17 04	●
22	Sa.	11 21	.....	5 20	17 55	●
23	S.	0 48	12 20	6 14	18 54	●
24	M.	1 46	13 27	7 18	20 01	●
25	Tu.	2 46	14 42	8 30	21 12	●
26	W.	3 44	16 00	9 48	22 20	●
27	Th.	4 38	17 15	10 57	23 21	●
28	F.	5 28	18 23	11 55	.....	●
29	Sa.	6 12	19 19	0 12	12 42	●
30	S.	6 51	20 04	0 55	13 22	●
31	M.	7 26	20 42	1 34	14 01	●

## JUNE.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Tu.	8 00	21 18	2 00	11 39	○
2	W.	8 33	21 53	2 47	15 16	○
3	Th.	9 07	22 29	3 22	15 52	○
4	F.	9 42	23 06	3 56	16 27	○
5	Sa.	10 18	23 43	4 36	17 01	○
6	S.	10 56	.....	5 07	17 36	○
7	M.	0 22	11 39	5 46	18 13	○
8	Tu.	1 03	12 31	6 30	18 55	○
9	W.	1 47	13 34	7 25	19 46	○
10	Th.	2 35	14 46	8 31	20 50	○
11	F.	3 26	16 02	9 46	22 00	○
12	Sa.	4 18	17 17	10 56	23 09	○
13	S.	5 11	18 26	11 58	.....	○
14	M.	6 03	19 26	0 10	12 54	○
15	Tu.	6 54	20 19	1 06	13 44	○
16	W.	7 44	21 10	1 57	14 33	○
17	Th.	8 34	22 00	2 47	15 21	○
18	F.	9 25	22 49	3 36	16 08	○
19	Sa.	10 17	23 37	4 24	16 55	○
20	S.	11 10	.....	5 12	17 43	○
21	M.	0 26	12 08	6 02	18 33	○
22	Tu.	1 16	13 12	6 56	19 26	○
23	W.	2 07	14 22	7 55	20 23	○
24	Th.	2 59	15 36	9 03	21 24	○
25	F.	3 51	16 50	10 15	22 29	○
26	Sa.	4 41	17 57	11 19	23 28	○
27	S.	5 27	18 54	.....	12 15	○
28	M.	6 11	19 43	0 18	13 03	○
29	Tu.	6 53	20 26	1 01	13 45	○
30	W.	7 32	21 04	1 42	14 24	○

## JULY.

Date.	Day.	H. M.	H. M.	H. M.	H. M.	Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Th.	8 10	21 38	2 20	15 01	○
2	F.	8 47	22 11	2 57	15 37	
3	Sa.	9 24	22 43	3 33	16 11	
4	S.	10 02	23 16	4 10	16 44	
5	M.	10 42	23 50	4 48	17 16	
6	Tu.	11 25	.....	5 27	17 49	
7	W.	0 28	12 15	6 09	18 25	
8	Th.	1 09	13 12	6 58	19 08	●
9	F.	1 53	14 18	7 56	20 01	●
10	Sa.	2 40	15 32	9 06	21 13	●
11	S.	3 34	16 54	10 28	22 33	●
12	M.	4 34	18 10	11 36	23 45	●
13	Tu.	5 37	19 13	.....	12 36	●
14	W.	6 39	20 06	0 48	13 31	●
15	Th.	7 36	20 55	1 44	14 22	●
16	F.	8 29	21 40	2 34	15 10	●
17	Sa.	9 21	22 24	3 20	15 56	●
18	S.	10 12	23 07	4 05	16 41	●
19	M.	11 04	23 51	4 51	17 25	●
20	Tu.	11 58	.....	5 39	18 08	●
21	W.	0 36	12 55	6 29	18 52	●
22	Th.	1 22	13 56	7 23	19 40	●
23	F.	2 09	15 03	8 22	20 34	●
24	Sa.	2 57	16 15	9 29	21 36	●
25	S.	3 47	17 26	10 42	22 43	●
26	M.	4 40	18 30	11 48	23 44	●
27	Tu.	5 34	19 23	.....	12 44	●
28	W.	6 26	20 08	0 38	13 30	●
29	Th.	7 14	20 45	1 25	14 08	●
30	F.	7 57	21 17	2 06	14 43	●
31	Sa.	8 36	21 47	2 44	15 17	●

## AUGUST.

Date.	Day.	H. M.	H. M.	H. M.	H. M.	Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	S.	9 14	22 16	3 20	15 50	○
2	M.	9 52	22 44	3 55	16 22	○
3	Tu.	10 31	23 13	4 29	16 53	○
4	W.	11 12	23 45	5 04	17 25	○
5	Th.	11 58	.....	5 42	17 59	○
6	F.	0 23	12 53	6 27	18 37	○
7	Sa.	1 06	14 00	7 24	19 18	○
8	S.	1 57	15 18	8 36	20 34	○
9	M.	2 56	16 42	9 59	22 05	○
10	Tu.	4 06	17 57	11 15	23 24	○
11	W.	5 18	19 00	12 22	.....	○
12	Th.	6 27	19 53	0 32	13 20	○
13	F.	7 27	20 38	1 30	14 09	○
14	Sa.	8 21	21 18	2 19	14 53	○
15	S.	9 12	21 57	3 04	15 36	○
16	M.	10 02	22 36	3 48	16 17	○
17	Tu.	10 51	23 15	4 31	16 57	○
18	W.	11 40	23 53	5 13	17 36	○
19	Th.	12 30	.....	5 56	18 14	○
20	F.	0 30	13 22	6 42	18 54	○
21	Sa.	1 08	14 20	7 36	19 42	○
22	S.	1 50	15 30	8 41	20 41	○
23	M.	2 42	16 48	9 54	21 52	○
24	Tu.	3 48	17 58	11 10	23 10	○
25	W.	4 58	18 52	.....	12 14	○
26	Th.	6 00	19 31	0 14	13 02	○
27	F.	6 54	20 04	1 04	13 40	○
28	Sa.	7 40	20 34	1 45	14 16	○
29	S.	8 20	21 03	2 21	14 50	○
30	M.	8 58	21 32	2 56	15 23	○
31	Tu.	9 35	22 02	3 30	15 55	○

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

TIDAL DIFFERENCES for the open Gulf of St. Lawrence, the Miramichi region and Cabot strait, are given on pages 10 and 11; and tables showing the time and strength of the TIDAL STREAMS in Northumberland strait, Bras d'Or and Grand Narrows, are given on pages 62 and 63.

## TIDE TABLES.—ST. PAUL ISLAND, N.S.—1920.

## SEPTEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.	OCTOBER.		LOW WATER.		Moon.	
		Morn'g.	After'n.	Morn'g.	After'n.		Morn'g.	After'n.	Morn'g.	After'n.		
1	W.	10 14	22 34	4 35	16 27		1	F.	10 48	22 35	4 24	16 40
2	Th.	10 56	23 09	4 41	17 00		2	Sa.	11 39	23 20	5 06	17 19
3	F.	11 47	23 49	5 20	17 35		3	S.	... .	12 39	5 52	18 03
4	Sa.	12 46	6 05	18 14			4	M.	0 13	13 47	6 48	19 00
5	S.	0 36	13 51	7 01	19 07		5	Tu.	1 15	14 59	7 58	20 14
6	M.	1 30	15 05	8 12	20 21		6	W.	2 26	16 10	9 18	21 42
7	Tu.	2 36	16 25	9 35	21 51		7	Th.	3 46	17 16	10 43	23 00
8	W.	3 52	17 40	11 00	23 15		8	F.	5 06	18 11	11 53	
9	Th.	5 12	18 42	12 12			9	Sa.	6 17	18 58	0 06	12 48
10	F.	6 24	19 30	0 22	13 08		10	S.	7 16	19 40	1 00	13 34
11	Sa.	7 25	20 12	1 17	13 54		11	M.	8 06	20 17	1 44	14 15
12	S.	8 18	20 50	2 03	14 35		12	Tu.	8 51	20 50	2 24	14 53
13	M.	9 05	21 25	2 46	15 14		13	W.	9 32	21 22	3 02	15 20
14	Tu.	9 48	21 59	3 27	15 52		14	Th.	10 12	21 53	3 39	15 56
15	W.	10 30	22 33	4 06	16 23		15	F.	10 52	22 24	4 16	16 31
16	Th.	11 13	23 06	4 44	17 03		16	Sa.	11 33	22 57	4 54	17 05
17	F.	11 58	23 39	5 23	17 38		17	S.	12 17	23 35	5 34	17 41
18	Sa.	12 47	6 03	13 14			18	M.	13 06	5 18	18 23	
19	S.	0 14	13 42	6 48	18 56		19	Tu.	0 20	14 00	7 07	19 17
20	M.	0 58	14 46	7 46	19 54	D	20	W.	1 17	14 58	8 08	20 28
21	Tu.	1 54	16 00	8 57	21 10		21	Th.	2 26	16 00	9 18	21 48
22	W.	3 01	17 06	10 16	22 37		22	F.	3 41	16 58	10 30	22 56
23	Th.	4 12	18 00	11 27	23 38		23	Sa.	4 54	17 48	11 32	23 54
24	F.	5 24	18 42	12 23			24	S.	5 58	18 30	12 22	
25	Sa.	6 26	19 18	0 27	13 06		25	M.	6 52	19 08	0 43	13 06
26	S.	7 18	19 50	1 11	13 44	O	26	Tu.	7 39	19 44	1 26	13 47
27	M.	8 01	20 21	1 51	14 20		27	W.	8 24	20 19	2 07	14 04
28	Tu.	8 42	20 52	2 29	14 55		28	Th.	9 08	20 54	2 46	15 43
29	W.	9 22	21 24	3 06	15 29		29	F.	9 53	21 31	3 25	15 24
30	Th.	10 04	21 58	3 44	16 04		30	Sa.	10 41	22 12	4 06	16 24
							31	S.	11 34	23 00	4 51	17 09

## NOVEMBER.

H. M.												
1	M.	12 32	23 58	5 40	17 58		1	W.	13 12	6 24	18 44	
2	Tu.	... .	13 33	6 36	18 56		2	Th.	14 11	7 25	19 50	
3	W.	1 05	14 36	7 43	20 05	G	3	F.	15 08	8 31	21 02	
4	Th.	2 19	15 40	9 03	21 24		4	Sa.	16 02	9 41	22 16	
5	F.	3 40	16 40	10 22	22 40		5	S.	16 54	10 49	23 22	
6	Sa.	4 59	17 35	11 28	23 44		6	M.	17 43	11 48	... .	
7	S.	6 07	18 24	12 23			7	Tu.	18 27	0 18	12 37	
8	M.	7 06	19 06	0 38	13 08		8	W.	19 07	1 05	13 19	
9	Tu.	7 58	19 42	1 24	13 48		9	Th.	19 45	1 46	13 57	
10	W.	8 42	20 16	2 04	14 25		10	F.	20 22	2 24	14 33	
11	Th.	9 21	20 49	2 43	15 00		11	Sa.	20 58	3 01	15 08	
12	F.	9 59	21 21	3 21	15 34		12	S.	21 33	3 37	15 43	
13	Sa.	10 36	21 54	3 58	16 08		13	M.	22 09	4 12	16 19	
14	S.	11 13	22 29	4 34	16 43		14	Tu.	22 47	4 47	16 56	
15	M.	11 51	23 07	5 10	17 20		15	W.	23 29	5 23	17 35	
16	Tu.	12 33	23 51	5 48	18 00		16	Th.	12 37	6 00	18 16	
17	W.	... .	13 18	6 30	18 46		17	F.	13 19	6 40	19 04	
18	Th.	0 42	14 06	7 18	19 44	D	18	Sa.	14 04	7 25	20 02	
19	F.	1 44	14 57	8 18	20 51		19	S.	14 53	8 18	21 12	
20	Sa.	2 55	15 49	9 26	22 06		20	M.	15 44	9 24	22 24	
21	S.	4 12	16 42	10 33	23 11		21	Tu.	16 38	10 38	23 27	
22	M.	5 24	17 33	11 32			22	W.	17 34	11 47	... .	
23	Tu.	6 26	18 19	0 06	12 24		23	Th.	18 29	0 23	12 44	
24	W.	7 19	19 01	0 54	13 12		24	F.	19 21	1 16	13 34	
25	Th.	8 08	19 42	1 40	13 56	O	25	Sa.	20 12	2 06	14 23	
26	F.	8 56	20 24	2 25	14 39		26	S.	21 02	2 55	15 11	
27	Sa.	9 43	21 09	3 09	15 22		27	M.	21 53	3 43	15 58	
28	S.	10 32	21 59	3 53	16 07		28	Tu.	22 46	4 30	16 45	
29	M.	11 33	22 54	4 39	16 54		29	W.	23 44	5 18	17 33	
30	Tu.	12 16	23 54	5 29	17 45		30	Th.	24 11	6 07	18 24	
							31	F.	13 30	6 59	19 21	

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

TIDAL DIFFERENCES for the open Gulf of St. Lawrence, the Miramichi region and Cabot strait, are given on pages 10 and 11; and tables showing the time and strength of the TIDAL STREAMS in Northumberland strait, Bras d'Or and Grand Narrows are given on pages 62 and 63.

## JANUARY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Th.	5 55	17 31	11 09	12 11	
2	F.	7 11	18 31	0 07	12 11	
3	Sa.	8 15	19 27	1 08	13 12	
4	S.	9 10	20 20	2 05	14 12	
5	M.	9 57	21 10	2 57	15 08	○
6	Tu.	10 44	22 04	3 48	16 04	
7	W.	11 32	22 58	4 37	16 56	
8	Th.	12 17	23 52	5 26	17 47	
9	F.	.....	12 59	6 14	18 37	
10	Sa.	0 46	13 40	7 02	19 27	
11	S.	1 39	14 23	7 49	20 18	
12	M.	2 36	15 07	8 38	21 12	●
13	Tu.	3 38	15 51	9 29	22 09	
14	W.	4 47	16 35	10 22	23 09	
15	Th.	6 02	17 22	11 16	.....	
16	F.	7 08	18 13	0 07	12 08	
17	Sa.	8 04	19 06	1 01	12 57	
18	S.	8 52	19 56	1 48	13 45	
19	M.	9 34	20 39	2 34	14 33	
20	Tu.	10 11	21 23	3 17	15 21	
21	W.	10 49	22 08	3 59	16 09	●
22	Th.	11 27	22 52	4 41	16 54	
23	F.	12 02	23 35	5 19	17 36	
24	Sa.	.....	12 35	5 56	18 16	
25	S.	0 18	13 06	6 33	18 56	
26	M.	1 00	13 38	7 10	19 40	
27	Tu.	1 47	14 13	7 52	20 31	
28	W.	2 45	14 56	8 40	21 30	●
29	Th.	3 55	15 49	9 37	22 37	
30	F.	5 26	16 53	10 43	23 47	
31	Sa.	6 49	18 05	11 51	.....	

## FEBRUARY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	S.	7 55	19 12	0 51	13 00	
2	M.	8 51	20 14	1 47	14 03	
3	Tu.	9 40	21 08	2 40	14 58	
4	W.	10 24	22 01	3 31	15 49	○
5	Th.	11 09	22 55	4 23	16 38	
6	F.	11 51	23 46	5 11	17 26	
7	Sa.	.....	12 30	5 56	18 12	
8	S.	0 35	13 05	6 38	18 58	
9	M.	1 23	13 37	7 19	19 43	
10	Tu.	2 12	14 11	8 01	20 32	
11	W.	3 02	14 48	8 46	21 26	●
12	Th.	3 58	15 27	9 34	22 23	
13	F.	5 06	16 16	10 25	23 22	
14	Sa.	6 23	17 16	11 19	.....	
15	S.	7 30	18 26	0 20	12 17	
16	M.	8 24	19 26	1 14	13 18	
17	Tu.	9 07	20 21	2 33	14 18	
18	W.	9 45	21 08	2 50	15 09	
19	Th.	10 19	21 53	3 35	15 53	
20	F.	10 52	22 38	4 07	16 35	
21	Sa.	11 25	23 23	4 56	17 15	
22	S.	11 56	.....	5 34	17 55	
23	M.	0 08	12 28	6 11	18 35	
24	Tu.	0 53	12 59	6 49	19 17	
25	W.	1 42	13 35	7 30	20 07	D
26	Th.	2 37	14 19	8 17	21 08	
27	F.	3 45	15 16	9 16	22 14	
28	Sa.	5 08	16 26	10 28	23 23	
29	S.	6 35	17 50	11 44	.....	

## MARCH.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		H.	M.	H.	M.	
1	M.	7 46	19 08	0 29	12 51	
2	Tu.	8 40	20 14	1 30	13 51	
3	W.	9 25	21 10	2 26	14 45	
4	Th.	10 02	21 58	3 15	15 34	○
5	F.	10 39	22 47	4 02	16 21	
6	Sa.	11 15	23 33	4 47	17 05	
7	S.	11 48	.....	5 29	17 48	
8	M.	0 17	12 19	6 08	18 30	
9	Tu.	0 59	12 49	6 46	19 12	
10	W.	1 40	13 20	7 23	19 55	
11	Tb.	2 25	13 54	8 04	20 41	
12	F.	3 15	14 33	8 51	21 33	●
13	Sa.	4 17	15 22	9 46	22 31	
14	S.	5 41	16 26	10 47	23 31	
15	M.	6 47	17 42	11 48	.....	
16	Tu.	7 42	19 02	0 30	12 47	
17	W.	8 27	20 03	1 25	13 43	
18	Th.	9 05	20 53	2 16	14 35	
19	F.	9 37	21 39	3 01	15 21	
20	Sa.	10 09	22 25	3 42	16 04	●
21	S.	10 42	23 11	4 24	16 47	
22	M.	11 15	23 56	5 05	17 30	
23	Tu.	11 49	.....	5 46	18 12	
24	W.	0 42	12 26	6 28	18 56	
25	Th.	1 30	13 08	7 11	19 45	
26	F.	2 27	13 57	8 02	20 41	
27	Sa.	3 38	14 56	9 05	21 47	D
28	S.	5 00	16 12	10 17	23 01	
29	M.	6 19	17 44	11 31	.....	
30	Tu.	7 25	19 11	0 15	12 40	
31	W.	8 18	20 17	1 17	13 39	

## APRIL.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		H.	M.	H.	M.	
1	Th.	8 59	21 12	2 09	14 31	
2	F.	9 35	21 56	2 56	15 18	
3	Sa.	10 05	22 38	3 39	16 02	
4	S.	10 36	23 21	4 21	16 44	
5	M.	11 06	.....	5 00	17 24	
6	Tu.	0 01	11 36	5 38	18 02	
7	W.	0 40	12 06	6 14	18 40	
8	Th.	1 19	12 37	6 50	19 17	
9	F.	1 59	13 13	7 30	19 59	
10	Sa.	2 44	13 54	8 16	20 49	
11	S.	3 38	14 42	9 10	21 47	●
12	M.	4 44	15 46	10 11	22 49	
13	Tu.	5 56	17 10	11 16	23 48	
14	W.	6 56	18 38	.....	12 22	
15	Th.	7 44	19 45	0 44	13 17	
16	F.	8 21	20 38	1 34	14 06	
17	Sa.	8 55	21 23	2 22	14 51	
18	S.	9 28	22 09	3 09	15 36	●
19	M.	10 04	22 56	3 55	16 22	
20	Tu.	10 43	23 43	4 40	17 07	
21	W.	11 23	.....	5 25	17 52	
22	Th.	0 32	12 06	6 10	18 39	
23	F.	1 24	12 51	6 58	19 28	
24	Sa.	2 24	13 43	7 52	20 24	
25	S.	3 33	14 46	8 53	21 30	D
26	M.	4 49	16 04	10 04	22 40	
27	Tu.	5 54	17 46	11 19	23 49	
28	W.	6 57	19 05	.....	12 26	
29	Th.	7 46	20 07	0 49	13 22	
30	F.	8 24	20 57	1 40	14 12	

The TIME used is Atlantic Standard, for the 60th Meridian, as in the other tide tables.

The HEIGHT of the tide at Pictou is 60 per cent of the height as given in the Charlottetown tide tables.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables for the TIDAL STREAMS in Bras d'Or and Grand Narrows, are given on page 63.

## TIDE TABLES.—PICTOU, N.S.—1920.

MAY.

JUNE.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.		HIGH WATER.		LOW WATER.		Moon.	
		Morn'g.	After'n.	Morn'g.	After'n.			Morn'g.	After'n.	Morn'g.	After'n.		
1	Sa.	8 57	21 40	2 28	14 59		O	1	Tu.	9 19	22 43	3 19	15 54
2	Sa.	9 25	22 19	3 12	15 41			2	W.	9 55	23 24	4 00	16 35
3	M.	9 55	23 01	3 52	16 21			3	Th.	10 31	... .	4 42	17 13
4	Tu.	10 27	23 42	4 32	16 59			4	F.	0 03	11 07	5 23	17 50
5	W.	10 58	.... .	5 10	17 36			5	Sa.	0 40	11 45	6 03	18 26
6	Th.	0 22	11 30	5 48	18 11			6	Sa.	1 16	12 24	6 44	19 03
7	F.	1 01	12 04	6 25	18 48			7	M.	1 52	13 08	7 26	19 44
8	Sa.	1 39	12 42	7 04	19 27			8	Tu.	2 29	13 57	8 14	20 29
9	Sa.	2 20	13 24	7 48	20 12			9	W.	3 09	14 53	9 09	21 21
10	M.	3 05	14 12	8 40	21 03			10	Th.	3 53	16 04	10 08	22 12
11	Tu.	3 55	15 22	9 41	21 58			11	F.	4 43	17 26	11 09	22 05
12	W.	4 54	16 27	10 47	22 57			12	Sa.	5 38	18 45	12 00	13 02
13	Th.	5 55	18 01	11 50	23 53			13	Sa.	6 32	19 52	0 00	13 56
14	F.	6 46	19 10	.... .	12 43			14	M.	7 24	20 49	1 00	13 48
15	Sa.	7 28	20 09	0 47	13 31			15	Tu.	8 12	21 41	2 02	14 48
16	Sa.	8 05	21 01	1 41	14 19			16	W.	9 01	22 33	2 59	15 39
17	M.	8 42	21 51	2 32	15 08			17	Th.	9 51	23 24	3 54	16 29
18	Tu.	9 22	22 42	3 23	15 57			18	F.	10 43	.... .	4 46	17 19
19	W.	10 07	23 34	4 13	16 46			19	Sa.	0 13	11 37	5 37	18 08
20	Th.	10 55	.... .	5 02	17 35			20	Sa.	1 02	12 34	6 27	18 56
21	F.	0 26	11 46	5 52	18 24			21	M.	1 51	13 33	7 19	19 49
22	Sa.	1 18	12 39	6 43	19 15			22	Tu.	2 42	14 38	8 15	20 42
23	Sa.	2 11	13 36	7 37	20 08			23	W.	3 36	15 50	9 15	21 39
24	M.	3 10	14 41	8 36	21 05	D		24	Th.	4 32	17 04	10 19	22 37
25	Tu.	4 14	16 00	9 40	22 07			25	F.	5 24	18 18	11 25	23 36
26	W.	5 16	17 28	10 48	23 11			26	Sa.	6 11	19 23	.... .	12 27
27	Th.	6 13	18 45	11 57	.... .			27	Sa.	6 53	20 18	0 29	13 18
28	F.	7 02	19 49	0 16	13 00			28	M.	7 30	21 04	1 16	14 03
29	Sa.	7 43	20 41	1 13	13 51			29	Tu.	8 07	21 44	2 02	14 46
30	Sa.	8 17	21 25	2 00	14 34			30	W.	8 42	22 31	2 46	15 28
31	M.	8 49	22 03	2 41	15 15								

JULY.

AUGUST.

	H. M.	H. M.	H. M.	H. M.	O			H. M.	H. M.	H. M.	H. M.		
1	Th.	9 22	23 01	3 30	16 09			1	Sa.	10 37	23 45	4 39	17 06
2	F.	10 06	23 40	4 15	16 50			2	M.	11 18	.... .	5 20	17 44
3	Sa.	10 49	.... .	4 58	17 30			3	Tu.	0 17	12 01	5 59	18 19
4	Sa.	0 17	11 31	5 41	18 07			4	W.	0 48	12 43	6 38	18 53
5	M.	0 52	12 13	6 23	18 43			5	Th.	1 20	13 29	7 18	19 28
6	Tu.	1 25	12 56	7 06	19 18			6	F.	1 53	14 19	8 04	20 07
7	W.	1 59	13 44	7 52	19 57			7	Sa.	2 28	15 19	8 57	20 57
8	Th.	2 34	14 37	8 42	20 41			8	Sa.	3 06	16 38	9 58	22 01
9	F.	3 09	15 39	9 36	21 30	C		9	M.	4 02	18 02	11 06	23 11
10	Sa.	3 53	16 56	10 34	22 27			10	Tu.	5 22	19 19	.... .	12 14
11	Sa.	4 47	18 23	11 34	23 29			11	W.	6 36	20 21	0 18	13 18
12	M.	5 49	19 36	.... .	12 32			12	Th.	7 43	21 15	1 24	14 16
13	Tu.	6 52	20 37	0 32	13 30			13	F.	8 40	21 59	2 29	15 07
14	W.	7 51	21 29	1 37	14 27			14	Sa.	9 34	22 42	3 26	15 57
15	Th.	8 47	22 18	2 39	15 22	D		15	Sa.	10 28	23 23	4 17	16 45
16	F.	9 43	23 06	3 27	16 17			16	M.	11 20	.... .	5 05	17 31
17	Sa.	10 39	23 54	4 32	17 06			17	Tu.	0 03	12 11	5 52	18 14
18	Sa.	11 33	.... .	5 24	17 53			18	W.	0 42	13 02	6 38	18 57
19	M.	0 39	12 26	6 14	18 37			19	Th.	1 18	13 54	7 24	19 39
20	Tu.	1 22	13 19	7 04	19 21			20	F.	1 55	14 47	8 13	20 24
21	W.	2 01	14 14	7 53	20 08			21	Sa.	2 33	15 44	9 05	21 13
22	Th.	2 42	15 13	8 46	20 59	D		22	Sa.	3 12	16 48	10 01	22 05
23	F.	3 25	16 21	9 44	21 55			23	M.	3 57	18 00	11 01	23 03
24	Sa.	4 09	17 42	10 45	22 53			24	Tu.	4 56	19 08	.... .	12 01
25	Sa.	4 59	18 48	11 46	23 48			25	W.	6 10	20 06	0 01	12 56
26	M.	5 53	19 49	.... .	12 41			26	Th.	7 13	20 51	1 00	13 46
27	Tu.	6 49	20 37	0 38	13 30			27	F.	8 08	21 28	1 55	14 32
28	W.	7 41	21 21	1 28	14 18			28	Sa.	8 56	22 01	2 34	15 16
29	Th.	8 28	21 59	2 19	15 03			29	Sa.	9 43	22 33	3 30	15 58
30	F.	9 12	22 36	3 09	15 46			30	M.	10 29	23 06	4 14	16 38
31	Sa.	9 55	23 12	3 56	16 27			31	Tu.	11 13	23 37	4 55	17 17

The TIME used is Atlantic Standard, for the 60th Meridian, as in the other tide tables.

The HEIGHT of the tide at Pictou is 60 per cent of the height as given in the Charlottetown tide tables.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables for the TIDAL STREAMS in Bras d'Or and Grand Narrows, are given on page 63.

## SEPTEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	W.	11 54	.....	5 36	17 54	
2	Th.	0 08	12 35	6 17	18 31	
3	F.	0 38	13 19	6 57	19 09	
4	Sa.	1 10	14 08	7 41	19 52	
5	S.	1 47	15 09	8 33	20 44	©
6	M.	2 37	16 26	9 34	21 49	
7	Tu.	3 44	17 50	10 43	23 02	
8	W.	5 02	19 06	11 52	.....	
9	Th.	6 26	20 05	0 16	12 58	
10	F.	7 42	20 54	1 19	13 57	
11	Sa.	8 45	21 32	2 15	14 48	
12	S.	9 37	22 11	3 07	15 36	◎
13	M.	10 28	22 51	3 58	16 23	
14	Tu.	11 17	23 28	4 45	17 08	
15	W.	.....	12 04	5 30	17 50	
16	Th.	0 03	12 49	6 13	18 31	
17	F.	0 36	13 32	6 56	19 11	
18	Sa.	1 10	14 17	7 40	19 54	
19	S.	1 47	15 07	8 27	20 43	D
20	M.	2 27	16 04	9 20	21 36	
21	Tu.	3 12	17 13	10 18	22 33	
22	W.	4 10	18 24	11 15	23 31	
23	Th.	5 27	19 26	.....	12 11	
24	F.	6 43	20 10	0 27	13 04	
25	Sa.	7 47	20 46	1 20	13 55	
26	S.	8 39	21 18	2 10	14 41	○
27	M.	9 24	21 50	2 56	15 25	
28	Tu.	10 08	22 23	3 41	16 07	
29	W.	10 53	22 56	4 25	16 47	
30	Th.	11 37	23 29	5 08	17 26	

## OCTOBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	F.	.....	.....	12 22	5 50	18 05
2	Sa.	0 04	13 09	6 32	18 46	
3	S.	0 44	14 02	7 19	19 36	
4	M.	1 32	15 02	8 13	20 37	
5	Tu.	2 28	16 14	9 18	21 46	©
6	W.	3 35	17 42	10 30	23 00	
7	Th.	4 58	18 54	11 41	.....	
8	F.	6 34	19 49	0 08	12 44	
9	Sa.	7 49	20 31	1 07	13 39	
10	S.	8 48	21 09	2 03	14 30	◎
11	M.	9 34	21 41	2 54	15 16	
12	Tu.	10 19	22 15	3 42	16 02	
13	W.	11 04	22 48	4 26	16 44	
14	Th.	11 47	23 21	5 08	17 25	
15	F.	12 39	23 52	5 48	18 05	
16	Sa.	.....	12 11	6 28	18 45	
17	S.	0 27	13 54	7 07	19 27	
18	M.	1 04	14 40	7 50	20 12	
19	Tu.	1 47	15 32	8 38	21 02	D
20	W.	2 35	16 29	9 33	22 00	
21	Th.	3 36	17 31	10 30	23 02	
22	F.	4 54	18 32	11 27	.....	
23	Sa.	6 19	19 23	0 05	12 21	
24	S.	7 25	20 02	1 00	13 13	○
25	M.	8 19	20 35	1 49	14 40	•
26	Tu.	9 05	21 07	2 32	14 49	
27	W.	9 51	21 40	3 15	15 34	
28	Th.	10 37	22 16	3 59	16 18	
29	F.	11 23	22 53	4 43	17 02	
30	Sa.	12 10	23 35	5 28	17 47	
31	S.	.....	12 59	6 14	18 36	

## NOVEMBER.

Date.	Day.	H.	M.	H.	M.	H.	M.	Moon.
		M.	.....	.....	.....	.....	.....	
1	M.	0 21	13 53	7 03	19 28			
2	Tu.	1 15	14 55	7 58	20 27			
3	W.	2 18	16 06	8 59	21 33			
4	Th.	3 32	17 19	10 05	22 44			©
5	F.	5 08	18 22	11 15	23 55			
6	Sa.	6 34	19 16	.....	12 21			
7	S.	7 42	19 58	0 56	13 16			
8	M.	8 37	20 36	1 48	14 05			
9	Tu.	9 24	21 67	2 36	14 51			
10	W.	10 05	21 39	3 19	15 34	◎		
11	Th.	10 48	22 13	4 02	16 16			
12	F.	11 30	22 47	4 43	16 56			
13	Sa.	12 10	23 22	5 23	17 36			
14	S.	12 50	23 58	6 02	18 16			
15	M.	.....	13 29	6 41	18 58			
16	Tu.	0 37	14 10	7 19	19 43			
17	W.	1 20	14 54	8 02	20 32			
18	Th.	2 07	15 40	8 51	21 28	D		
19	F.	3 03	16 32	9 44	22 28			
20	Sa.	4 14	17 27	10 41	23 28			
21	S.	5 42	18 20	11 37	.....			
22	M.	6 54	19 03	0 25	12 30			
23	Tu.	7 54	19 44	1 15	13 21			
24	W.	8 46	20 22	2 03	14 12			
25	Th.	9 35	21 01	2 49	15 03			
26	F.	10 23	21 43	3 36	15 52			
27	Sa.	11 12	22 29	4 24	16 41			
28	S.	12 00	23 20	5 11	17 30			
29	M.	.....	12 50	5 59	18 20			
30	Tu.	0 16	13 42	6 49	19 14			

## DECEMBER.

Date.	Day.	H.	M.	H.	M.	H.	M.	Moon.
		M.	.....	.....	.....	.....	.....	
1	W.	1 14	14 38	7 40	20 13			
2	Th.	2 20	15 39	8 36	21 17			©
3	F.	3 34	16 43	9 38	22 25			
4	Sa.	4 54	17 42	10 43	23 33			
5	S.	5 17	18 35	11 48	.....			
6	M.	7 27	19 22	0 35	12 47			
7	Tu.	8 26	19 59	1 27	13 37			
8	W.	9 15	20 34	2 14	14 23			
9	Sa.	9 58	21 05	2 59	15 06			
10	F.	10 36	21 39	3 41	15 49	◎		
11	Sa.	11 15	22 17	4 22	16 32			
12	S.	11 53	22 55	5 01	17 14			
13	M.	12 29	23 35	5 39	17 55			
14	Tu.	.....	13 03	6 16	18 36			
15	W.	0 16	13 36	6 53	19 18			
16	Th.	0 59	14 11	7 31	20 04			
17	F.	1 46	14 49	8 12	20 56			
18	Sa.	2 38	15 30	8 58	21 53	D		
19	S.	3 40	16 17	9 51	22 52			
20	M.	4 57	17 06	10 44	23 46			
21	Tu.	6 20	18 02	11 37	.....			
22	W.	7 28	18 45	0 36	12 33			
23	Th.	8 27	19 46	1 28	13 32			
24	F.	9 20	20 36	2 21	14 31			
25	Sa.	10 11	21 27	3 14	15 28			
26	S.	11 00	22 20	4 07	16 23			
27	M.	11 48	23 14	4 57	17 16			
28	Tu.	.....	12 36	5 47	18 08			
29	W.	0 10	13 24	6 36	19 00			
30	Th.	1 08	14 12	7 25	19 52			
31	F.	2 10	15 03	8 17	20 48			

The TIME used is Atlantic Standard, for the 60th Meridian, as in the other tide tables.

The HEIGHT of the tide at Pictou is 60 per cent of the height as given in the Charlottetown tide tables.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables for the TIDAL STREAMS in Bras d'Or and Grand Narrows, are given on page 63.

Date.	Day.	JANUARY.								FEBRUARY.									
		HIGH WATER,				LOW WATER.				HIGH WATER,				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
		H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
1	Th.	6:17	6·6	17:53	7·7	11:42	3·6	.....	.....	1	S.	8:19	6·9	19:38	8·0	1:29	1·2	13:42	3·8
2	F.	7:33	6·9	18:55	8·0	0:42	1·8	12:49	3·7	2	M.	9:19	7·3	20:44	8·2	2:32	0·9	14:51	3·6
3	Sa.	8:41	7·3	19:55	8·3	1:50	1·3	13:57	3·7	3	Tu.	10:13	7·6	21:45	8·3	3:31	0·6	15:52	3·2
4	S.	9:40	7·6	20:53	8·5	2:53	0·8	15:03	3·6	4	W.	11:04	7·9	22:42	8·4	4:27	0·4	16:46	2·7
5	M.	10:34	7·9	21:50	8·7	3:51	0·4	16:04	3·4	5	Th.	11:51	8·0	23:37	8·4	5:20	0·4	17:36	2·2
6	Tu.	11:25	8·2	22:46	8·8	4:45	0·1	17:01	3·1	6	F.	.....	.....	12:34	8·1	6:09	0·5	18:24	1·8
7	W.	12:14	8·4	23:41	8·8	5:35	0·0	17:54	2·8	7	Sa.	0:29	8·4	13:13	8·0	6:54	0·8	19:10	1·6
8	Th.	.....	.....	13:00	8·4	6:24	0·1	18:45	2·5	8	S.	1:18	8·2	13:47	7·9	7:36	1·2	19:55	1·5
9	F.	0:35	8·6	13:42	8·3	7:12	0·4	19:35	2·3	9	M.	2:05	7·8	14:18	7·7	8:16	1·8	20:39	1·6
10	Sa.	1:28	8·4	14:22	8·1	7:59	0·9	20:24	2·2	10	Tu.	2:51	7·3	14:48	7·6	8:55	2·4	21:24	1·8
11	S.	2:20	8·0	15:02	7·9	8:45	1·5	21:12	2·3	11	W.	3:36	6·8	15:19	7·4	9:35	3·0	22:11	2·0
12	M.	3:13	7·4	15:41	7·6	9:30	2·3	22:01	2·3	12	Th.	4:26	6·4	15:53	7·3	10:16	3·5	23:01	2·2
13	Tu.	4:09	6·9	16:19	7·4	10:14	2·9	22:51	2·4	13	F.	5:30	6·1	16:38	7·1	11:00	3·9	23:55	2·3
14	W.	5:13	6·5	16:59	7·3	11:00	3·5	23:44	2·4	14	Sa.	6:45	6·0	17:38	7·0	11:52	4·2	.....	.....
15	Th.	6:24	6·4	17:44	7·2	11:49	3·9	.....	.....	15	S.	7:52	6·1	18:48	7·0	0:53	2·3	12:52	4·2
16	F.	7:30	6·3	18:35	7·2	0:40	2·3	12:41	4·2	16	M.	8:48	6·4	19:52	7·1	1:52	2·2	14:00	4·1
17	Sa.	8:28	6·5	19:32	7·3	1:36	2·2	13:35	4·3	17	Tu.	9:35	6·7	20:51	7·3	2:48	2·0	15:06	3·8
18	S.	9:20	6·7	20:26	7·5	2:30	1·9	14:30	4·2	18	W.	10:18	6·9	21:44	7·5	3:41	1·7	16:02	3·4
19	M.	10:07	7·0	21:15	7·7	3:22	1·7	15:24	4·1	19	Th.	10:57	7·2	22:33	7·7	4:30	1·5	16:49	3·0
20	Tu.	10:49	7·2	22:03	7·8	4:10	1·5	16:16	3·9	20	F.	11:33	7·4	23:20	7·9	5:14	1·4	17:32	2·5
21	W.	11:30	7·4	22:50	7·9	4:55	1·3	17:06	3·6	21	Sa.	.....	.....	12:07	7·6	5:54	1·3	18:13	2·1
22	Th.	12:09	7·5	23:35	7·9	5:38	1·2	17:52	3·4	22	S.	0:06	8·0	12:39	7·7	6:32	1·5	18:53	1·8
23	F.	.....	.....	12:45	7·6	6:17	1·2	18:34	3·1	23	M.	0:51	7·9	13:10	7·9	7:09	1·8	19:32	1·5
24	Sa.	0:18	8·0	13:18	7·6	6:54	1·4	19:14	2·8	24	Tu.	1:35	7·8	13:40	8·0	7:46	2·1	20:13	1·3
25	S.	1:00	7·9	13:48	7·7	7:30	1·7	19:53	2·6	25	W.	2:21	7·6	14:12	8·0	8:24	2·5	20:59	1·2
26	M.	1:41	7·7	14:17	7·7	8:06	2·1	20:34	2·4	26	Th.	3:11	7·2	14:50	7·9	9:06	3·0	21:53	1·3
27	Tu.	2:24	7·5	14:47	7·8	8:44	2·5	21:20	2·2	27	F.	4:13	6·8	15:42	7·7	9:58	3·4	22:52	1·4
28	W.	3:16	7·2	15:24	7·8	9:25	2·9	22:12	2·0	28	Sa.	5:32	6·5	16:48	7·5	11:03	3·7	23:56	1·4
29	Th.	4:21	6·8	16:13	7·8	10:15	3·3	23:12	1·8	29	S.	6:57	6·6	18:12	7·3	.....	.....	12:17	3·8
30	F.	5:48	6·6	17:15	7·7	11:16	3·7	.....	.....	31	Sa.	7:11	6·7	18:27	7·8	0:20	1·5	12:26	3·8

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the average level of the lower Low Water at Spring tides, as ascertained by the tide gauge observations themselves.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables showing the turn of the TIDAL STREAMS in Northumberland strait and their strength, are given on page 62.

Date.	Day.	MARCH.								APRIL.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	M.	8:08	6·8	19:32	7·4	1:04	1·3	13:29	3·6	1	Th.	9:27	7·2	21:42	7·5	2:54	1·7	15:19	2·0
2	Tu.	9:06	7·1	20:42	7·6	2:12	1·2	14:36	3·2	2	F.	10:08	7·4	22:33	7·7	3:47	1·7	16:12	1·4
3	W.	9:55	7·3	21:43	7·9	3:14	1·1	15:36	2·6	3	Sa.	10:45	7·5	23:19	7·8	4:35	1·8	16:59	1·0
4	Th.	10:39	7·6	22:38	8·1	4:09	1·0	16:30	2·0	4	S.	11:18	7·6	.....	.....	5:18	1·9	17:42	0·7
5	F.	11:20	7·7	23:29	8·2	4:59	1·0	17:18	1·5	5	M.	0:03	7·8	11:49	7·6	5:58	2·1	18:22	0·6
6	Sa.	11:57	7·8	.....	.....	5:45	1·1	18:03	1·1	6	Tu.	0:44	7·7	12:19	7·7	6:36	2·4	19:00	0·7
7	S.	0:16	8·1	12:31	7·8	6:27	1·4	18:46	0·9	7	W.	1:23	7·5	12:48	7·7	7:12	2·7	19:37	0·8
8	M.	1:00	7·9	13:02	7·7	7:06	1·7	19:28	1·0	8	Th.	2:01	7·2	13:18	7·6	7:47	3·1	20:13	1·1
9	Tu.	1:41	7·6	13:31	7·6	7:43	2·2	20:09	1·1	9	F.	2:38	6·8	13:50	7·4	8:24	3·4	20:51	1·5
10	W.	2:21	7·2	13:59	7·5	8:19	2·7	20:49	1·4	10	Sa.	3:18	6·6	14:25	7·2	9:05	3·7	21:34	1·9
11	Th.	3:02	6·9	14:28	7·4	8:56	3·2	21:30	1·7	11	S.	4:06	6·3	15:08	6·9	9:52	3·9	22:25	2·2
12	F.	3:46	6·4	15:01	7·2	9:36	3·6	22:15	2·0	12	M.	5:08	6·1	16:08	6·6	10:46	4·0	23:22	2·4
13	Sa.	4:43	6·1	15:46	7·0	10:24	3·9	23:06	2·2	13	Tu.	6:18	6·1	17:32	6·3	11:49	3·9	.....	.....
14	S.	6:03	5·9	16:48	6·7	11:20	4·1	.....	.....	14	W.	7:18	6·3	19:00	6·5	0:21	2·5	12:57	3·5
15	M.	7:09	6·0	18:04	6·6	0:04	2·3	12:21	4·0	15	Th.	8:08	6·7	20:11	6·8	1:22	2·5	13:59	3·0
16	Tu.	8:04	6·3	19:26	6·7	1:05	2·3	13:25	3·8	16	F.	8:49	7·0	21:08	7·1	2:19	2·4	14:54	2·3
17	W.	8:53	6·6	20:31	7·0	2:07	2·2	14:28	3·4	17	Sa.	9:28	7·3	21:59	7·5	3:13	2·3	15:44	1·6
18	Th.	9:35	6·9	21:26	7·3	3:04	2·0	15:26	2·9	18	S.	10:06	7·7	22:49	7·8	4:04	2·3	16:32	1·0
19	F.	10:13	7·2	22:17	7·6	3:54	1·8	16:16	2·3	19	M.	10:45	8·0	23:38	8·0	4:52	2·2	17:19	0·4
20	Sa.	10:49	7·4	23:06	7·8	4:33	1·7	17:01	1·7	20	Tu.	11:25	8·3	.....	.....	5:38	2·3	18:05	0·0
21	S.	11:24	7·7	23:53	8·0	5:21	1·7	17:45	1·2	21	W.	0:26	8·2	12:06	8·4	6:23	2·4	18:50	-0·2
22	M.	11:58	7·9	.....	.....	6:03	1·8	18:28	0·7	22	Th.	1:15	8·1	12:48	8·5	7:08	2·6	19:36	-0·1
23	Tu.	0:39	8·1	12:32	8·1	6:44	2·0	19:10	0·5	23	F.	2:06	7·9	13:32	8·3	7:55	2·9	20:24	0·2
24	W.	1:24	8·0	13:08	8·2	7:25	2·3	19:53	0·4	24	Sa.	3:03	7·6	14:20	7·9	8:46	3·1	21:16	0·6
25	Th.	2:11	7·8	13:47	8·1	8:07	2·7	20:39	0·6	25	S.	4:07	7·3	15:17	7·4	9:42	3·3	22:15	1·1
26	F.	3:04	7·4	14:31	7·9	8:54	3·1	21:30	0·8	26	M.	5:17	7·0	16:30	6·9	10:46	3·4	23:18	1·6
27	Sa.	4:09	6·9	15:24	7·5	9:50	3·4	22:29	1·2	27	Tu.	6:22	6·9	18:08	6·7	11:54	3·2	.....	.....
28	S.	5:26	6·7	16:36	7·1	10:55	3·6	23:36	1·5	28	W.	7:19	7·0	19:27	6·8	0:22	2·0	12:59	2·7
29	M.	6:41	6·7	18:06	6·9	.....	.....	12:04	3·5	29	Th.	8:08	7·1	20:31	7·0	1:24	2·3	14:00	2·2
30	Tu.	7:47	6·8	19:33	7·0	0:48	1·6	13:15	3·2	30	F.	8:50	7·2	21:25	7·2	2:22	2·4	14:57	1·7
31	W.	8:42	7·0	20:43	7·2	1:55	1·7	14:21	2·6										

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the average level of the lower Low Water at Spring tides as ascertained by the tide gauge observations themselves.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables showing the turn of the TIDAL STREAMS in Northumberland strait and their strength are given on page 62.

Date.	Day.	MAY.								Date.	Day.	JUNE.									
		HIGH WATER.				LOW WATER.						HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
		H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.			H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
1	Sa.	9:27	7·3	22:13	7·4	3:16	2·5	15:50	1·2	1	Tu.	9:59	7·6	23:24	7·2	4:13	3·5	16:50	0·8		
2	So.	10:02	7·5	22:59	7·5	4:05	2·7	16:36	0·8	2	W.	10:37	7·7	.....	.....	4:57	3·5	17:32	0·7		
3	M.	10:36	7·6	23:43	7·5	4:48	2·8	17:18	0·6	3	Th.	0:06	7·3	11:14	7·8	5:40	3·6	18:11	0·8		
4	Tu.	11:09	7·7	.....	.....	5:29	2·9	17:57	0·6	4	F.	0:46	7·3	11:50	7·8	6:21	3·6	18:48	0·9		
5	W.	0:25	7·5	11:41	7·8	6:08	3·1	18:34	0·6	5	Sa.	1:23	7·3	12:27	7·7	7:01	3·6	19:24	1·1		
6	Th.	1:05	7·4	12:13	7·7	6:46	3·3	19:09	0·8	6	So.	1:58	7·2	13:05	7·5	7:41	3·6	20:00	1·5		
7	F.	1:43	7·3	12:46	7·6	7:23	3·5	19:45	1·1	7	M.	2:31	7·1	13:45	7·3	8:22	3·7	20:38	1·8		
8	Sa.	2:20	7·1	13:21	7·5	8:01	3·6	20:23	1·4	8	Tu.	3:03	7·0	14:28	7·0	9:06	3·6	21:18	2·2		
9	So.	2:57	6·9	13:58	7·3	8:42	3·8	21:04	1·8	9	W.	3:37	6·9	15:19	6·7	9:54	3·5	22:01	2·5		
10	M.	3:36	6·7	14:40	6·9	9:29	3·9	21:48	2·2	10	Th.	4:17	6·9	16:26	6·4	10:46	3·2	22:47	2·9		
11	Tu.	4:21	6·5	15:36	6·6	10:23	3·8	22:36	2·5	11	F.	5:05	7·0	17:48	6·3	11:42	2·8	23:38	3·1		
12	W.	5:16	6·5	16:49	6·3	11:22	3·6	23:30	2·7	12	Sa.	6:00	7·3	19:09	6·5	.....	.....	12:42	2·2		
13	Th.	6:17	6·7	18:23	6·3	.....	.....	12:23	3·2	13	So.	6:58	7·6	20:20	6·9	0:38	3·3	13:44	1·6		
14	F.	7:10	6·9	19:36	6·6	0:28	2·8	13:21	2·6	14	M.	7:54	8·0	21:22	7·3	1:45	3·4	14:44	1·0		
15	Sa.	7:56	7·3	20:39	7·0	1:29	2·9	14:16	1·9	15	Tu.	8:48	8·3	22:19	7·6	2:53	3·4	15:42	0·4		
16	So.	8:38	7·7	21:37	7·4	2:29	2·9	15:10	1·2	16	W.	9:41	8·6	23:14	7·9	3:55	3·3	16:36	-0·1		
17	M.	9:20	8·0	22:31	7·8	3:25	2·9	16:03	0·5	17	Th.	10:33	8·8	.....	.....	4:51	3·1	17:27	-0·4		
18	Tu.	10:03	8·4	23:24	8·0	4:19	2·8	16:54	0·0	18	F.	0:06	8·2	11:26	3·8	5:44	2·9	18:17	-0·4		
19	W.	10:49	8·6	.....	.....	5:10	2·8	17:44	-0·4	19	Sa.	0:56	8·3	12:20	8·7	6:35	2·7	19:06	-0·3		
20	Th.	0:17	8·2	11:38	8·7	6:00	2·8	18:33	-0·5	20	So.	1:45	8·3	13:16	8·5	7:25	2·5	19:55	0·1		
21	F.	1:09	8·2	12:29	8·6	6:50	2·8	19:22	-0·3	21	M.	2:33	8·1	14:14	8·1	8:16	2·4	20:45	0·7		
22	Sa.	2:00	8·1	13:21	8·4	7:41	2·8	20:12	0·1	22	Tu.	3:21	7·9	15:15	7·6	9:09	2·4	21:34	1·5		
23	So.	2:52	7·9	14:15	8·0	8:34	2·9	21:04	0·6	23	W.	4:10	7·6	16:21	7·0	10:04	2·4	22:24	2·2		
24	M.	3:47	7·6	15:15	7·4	9:30	3·0	21:57	1·2	24	Th.	5:00	7·3	17:30	6·6	11:01	2·3	23:15	2·8		
25	Tu.	4:45	7·4	16:28	6·9	10:29	2·9	22:52	1·9	25	F.	5:48	7·1	18:40	6·4	.....	.....	12:00	2·2		
26	W.	5:42	7·2	17:52	6·7	11:30	2·7	23:49	2·4	26	Sa.	6:33	7·1	19:45	6·4	0:09	3·3	13:00	2·0		
27	Th.	6:35	7·1	19:07	6·7	.....	.....	12:32	2·4	27	So.	7:15	7·1	20:42	6·5	1:04	3·7	13:56	1·8		
28	F.	7:24	7·1	20:11	6·8	0:49	2·8	13:33	2·0	28	M.	7:56	7·3	21:32	6·7	1:58	3·9	14:48	1·5		
29	Sa.	8:07	7·2	21:07	6·9	1:48	3·1	14:29	1·6	29	Tu.	8:37	7·5	22:17	6·9	2:50	3·9	15:37	1·3		
30	So.	8:45	7·3	21:55	7·0	2:42	3·3	15:19	1·3	30	W.	9:19	7·6	23:01	7·0	3:39	3·9	16:23	1·1		
31	M.	9:22	7·5	22:40	7·1	3:29	3·4	16:06	1·0												

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the average level of the lower Low Water at Spring tides, as ascertained by the tide gauge observations themselves.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables showing the turn of the TIDAL STREAMS in Northumberland strait and their strength, are given on page 62.

Date	Day	JULY.								AUGUST.								
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.				
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	
1	Th.	R. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	
1	Th.	10:03	7·7	23:43	7·2	4:26	3·8	17:06	1·0	1	5:19	7·8	.....	5:37	3·2	18:04	1·2	
2	F.	10:48	7·8	.....	.....	5:12	3·7	17:48	1·0	2	6:28	7·4	12:01	7·8	6:18	2·9	18:42	1·3
3	Sa.	0:23	7·3	11:32	7·8	5:56	3·5	18:28	1·0	3	1:00	7·5	12:43	7·8	6:57	2·6	19:17	1·6
4	Su.	1:00	7·4	12:14	7·7	6:39	3·4	19:05	1·2	4	1:30	7·5	13:24	7·6	7:35	2·4	19:50	2·0
5	M.	1:34	7·4	12:55	7·6	7:21	3·3	19:40	1·5	5	1:50	7·6	14:06	7·4	8:14	2·3	20:22	2·4
6	Tu.	2:06	7·3	13:35	7·5	8:03	3·2	20:14	1·8	6	2:27	7·7	14:50	7·1	8:56	2·1	20:56	2·8
7	W.	2:36	7·3	14:18	7·2	8:46	3·1	20:49	2·2	7	2:56	7·7	15:45	6·8	9:42	2·0	21:39	3·2
8	Th.	3:05	7·3	15:05	6·9	9:31	2·9	21:26	2·6	8	3:30	7·7	17:00	6·5	10:36	1·9	22:36	3·6
9	F.	3:35	7·4	16:03	6·6	10:18	2·6	22:08	3·0	9	4:24	7·7	18:24	6·4	11:39	1·7	23:44	3·8
10	Sa.	4:15	7·5	17:18	6·4	11:09	2·3	23:00	3·4	10	5:44	7·7	19:43	6·6	.....	.....	12:49	1·5
11	Su.	5:09	7·6	18:45	6·5	.....	.....	12:07	1·9	11	7:02	7·8	20:49	7·0	0:56	3·8	14:00	1·1
12	M.	6:13	7·8	20:02	6·7	0:04	3·6	13:10	1·5	12	8:13	8·0	21:48	7·3	2:09	3·6	15:04	0·9
13	Tu.	7:20	8·0	21:07	7·1	1:14	3·7	14:15	1·0	13	9:17	8·3	22:39	7·7	3:20	3·2	16:01	0·6
14	W.	8:24	8·3	22:05	7·5	2:25	3·6	15:18	0·5	14	10:15	8·5	23:24	7·9	4:22	2·6	16:54	0·4
15	Th.	9:25	8·5	22:58	7·8	3:33	3·4	16:18	0·1	15	11:10	8·6	.....	.....	5:14	2·0	17:43	0·4
16	F.	10:24	8·7	23:48	8·0	4:24	3·0	17:14	0·1	16	12:06	8·1	12:03	8·6	6:03	1·5	18:29	0·6
17	Sa.	11:21	8·8	.....	.....	5:30	2·6	18:04	0·2	17	1:46	8·2	12:54	8·5	6:50	1·2	19:12	1·0
18	Su.	0:37	8·2	12:16	8·7	6:22	2·2	18:51	0·0	18	1:24	8·1	13:44	8·1	7:36	1·1	19:54	1·5
19	M.	1:22	8·3	13:09	8·5	7:12	1·9	19:35	0·4	19	1:59	7·9	14:33	7·7	8:21	1·2	20:35	2·2
20	Tu.	2:04	8·2	14:01	8·2	8:01	1·8	20:18	1·0	20	2:32	7·7	15:21	7·2	9:07	1·5	21:16	2·8
21	W.	2:42	8·0	14:53	7·6	8:49	1·8	21:02	1·8	21	3:04	7·5	16:12	6·6	9:54	1·8	21:58	3·4
22	Th.	3:19	7·7	15:47	7·1	9:38	1·9	21:48	2·5	22	3:38	7·3	17:12	6·2	10:43	2·1	22:43	3·8
23	F.	3:56	7·4	16:49	6·6	10:29	2·0	22:37	3·1	23	4:19	7·1	18:22	6·0	11:36	2·3	23:36	4·1
24	Sa.	4:35	7·2	18:00	6·2	11:23	2·1	23:28	3·7	24	5:18	6·9	19:30	6·1	.....	.....	12:34	2·4
25	Su.	5:21	7·1	19:10	6·1	.....	.....	12:19	2·1	25	6:32	6·9	20:30	6·3	0:36	4·2	13:34	2·3
26	M.	6:15	7·0	20:11	6·2	0:21	4·0	13:16	2·0	26	7:39	7·0	21:19	6·6	1:42	4·1	14:31	2·2
27	Tu.	7:13	7·1	21:03	6·4	1:16	4·2	14:12	1·9	27	8:38	7·2	22:01	6·9	2:43	3·8	15:23	2·0
28	W.	8:09	7·3	21:51	6·7	2:13	4·1	15:06	1·7	28	9:32	7·4	22:39	7·1	3:37	3·4	16:11	1·8
29	Th.	9:01	7·4	22:35	6·9	3:10	4·0	15:56	1·5	29	10:23	7·6	23:14	7·3	4:26	3·0	16:55	1·6
30	F.	9:50	7·6	23:16	7·1	4:04	3·7	16:42	1·3	30	11:11	7·8	23:48	7·5	5:11	2·5	17:36	1·6
31	Sa.	10:36	7·7	23:54	7·3	4:53	3·4	17:24	1·2	31	11:56	7·9	.....	.....	5:53	2·1	18:15	1·7

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the average level of the lower Low Water at Spring tides, as ascertained by the tide gauge observations themselves.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables showing the time and strength of the TIDAL STREAMS in Northumberland strait, are given on page 62.

## TIDE TABLES.—CHARLOTTETOWN, P.E.I.—1920.

Date.	Day.	SEPTEMBER.								OCTOBER.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	W.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	1	F.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
		0:20	7·7	12:37	7·9	6:34	1·8	18:52	2·0			0:12	8·2	13:04	8·1	6:48	0·8	19:02	2·7
2	Th.	0:50	7·9	13:17	7·9	7:14	1·6	19:28	2·3	2	Sa.	0:46	8·3	13:50	8·0	7:29	0·7	19:42	3·0
3	F.	1:19	8·0	13:58	7·7	7:53	1·4	20:03	2·7	3	S.	1:23	8·3	14:39	7·6	8:13	0·8	20:28	3·4
4	Sa.	1:47	8·0	14:42	7·3	8:33	1·4	20:41	3·1	4	M.	2:06	8·2	15:33	7·3	9:02	1·1	21:22	3·7
5	S.	2:18	8·0	15:37	7·0	9:18	1·4	21:26	3·5	5	Tu.	2:56	7·9	16:40	7·0	10:00	1·4	22:24	3·8
6	M.	3:03	7·9	16:50	6·6	10:12	1·5	22:24	3·8	6	W.	3:59	7·5	18:04	6·9	11:05	1·7	23:33	3·8
7	Tu.	4:06	7·6	18:12	6·5	11:16	1·6	23:35	3·9	7	Th.	5:20	7·3	19:16	7·0	.....	.....	12:14	2·0
8	W.	5:24	7·4	19:28	6·7	.....	.....	12:27	1·7	8	F.	6:56	7·4	20:13	7·3	0:43	3·5	13:22	2·1
9	Th.	6:50	7·5	20:31	7·0	0:54	3·8	13:40	1·5	9	Sa.	8:15	7·5	20:59	7·5	1:49	2·9	14:24	2·1
10	F.	8:10	7·7	21:24	7·3	2:04	3·3	14:45	1·4	10	S.	9:18	7·8	21:42	7·7	2:51	2·3	15:21	2·1
11	Sa.	9:18	8·0	22:09	7·6	3:06	2·7	15:42	1·2	11	M.	10:11	8·1	22:21	7·8	3:48	1·6	16:12	2·1
12	S.	10:17	8·3	22:52	7·8	4:03	2·1	16:33	1·2	12	Tu.	11:00	8·2	22:57	7·9	4:39	1·1	16:59	2·2
13	M.	11:10	8·4	23:33	8·0	4:55	1·5	17:21	1·2	13	W.	11:46	8·2	23:31	8·0	5:24	0·8	17:42	2·4
14	Tu.	.....	12:00	8·5	5:43	1·0	18:06	1·4	14	Th.	.....	12:30	8·1	6:06	0·6	18:23	2·7		
15	W.	0:11	8·1	12:47	8·3	6:28	0·8	18:48	1·8	15	F.	0:04	8·0	13:12	7·9	6:46	0·7	19:03	3·0
16	Th.	0:46	8·0	13:31	8·0	7:11	0·8	19:28	2·2	16	Sa.	0:36	8·0	13:53	7·7	7:25	0·9	19:42	3·3
17	F.	1:18	7·9	14:13	7·7	7:53	1·0	20:07	2·7	17	S.	1:08	7·9	14:33	7·4	8:03	1·2	20:21	3·7
18	Sa.	1:49	7·8	14:54	7·2	8:34	1·3	20:46	3·3	18	M.	1:41	7·7	15:14	7·0	8:42	1·7	21:01	3·9
19	S.	2:21	7·7	15:38	6·8	9:16	1·7	21:28	3·7	19	Tu.	2:18	7·5	16:00	6·8	9:23	2·1	21:44	4·1
20	M.	2:55	7·4	16:30	6·4	10:02	2·1	22:14	4·0	20	W.	3:01	7·2	16:53	6·6	10:11	2·5	22:35	4·2
21	Tu.	3:36	7·1	17:35	6·2	10:53	2·4	23:06	4·2	21	Th.	3:58	6·9	17:53	6·5	11:03	2·8	23:35	4·1
22	W.	4:32	6·8	18:46	6·2	11:48	2·6	.....	.....	22	F.	5:16	6·6	18:54	6·7	.....	.....	12:00	2·9
23	Th.	5:49	6·7	19:48	6·4	0:04	4·2	12:46	2·7	23	Sa.	6:41	6·6	19:47	6·9	0:40	3·8	12:59	3·0
24	F.	7:07	6·8	20:36	6·7	1:05	3·9	13:46	2·6	24	S.	7:51	6·9	20:30	7·2	1:42	3·3	13:58	3·0
25	Sa.	8:15	7·0	21:16	7·0	2:05	3·6	14:43	2·5	25	M.	8:49	7·2	21:08	7·5	2:37	2·7	14:54	3·0
26	S.	9:12	3	21:54	7·3	3:01	3·0	15:34	2·3	26	Tu.	9:41	7·6	21:45	7·8	3:25	2·1	15:44	2·9
27	M.	10:02	7·6	22:30	7·5	3:51	2·5	16:21	2·2	27	W.	10:31	7·9	22:21	8·1	4:11	1·5	16:31	2·9
28	Tu.	10:49	7·9	23:05	7·8	4:38	1·9	17:04	2·2	28	Th.	11:19	8·1	22:58	8·4	4:56	0·9	17:16	2·9
29	W.	11:35	8·0	23:39	8·0	5:23	1·5	17:45	2·3	29	F.	12:06	8·3	23:36	8·6	5:41	0·6	18:00	3·0
30	Th.	.....	12:20	8·1	6:06	1·1	18:24	2·5	30	Sa.	.....	12:53	8·3	6:26	0·3	18:45	3·1		
										31	S.	0:17	8·7	13:41	8·2	7:12	0·3	19:33	3·3

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the average level of the lower Low Water at Spring tides, as ascertained by the tide gauge observations themselves.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables showing the turn of the TIDAL STREAMS in Northumberland strait and their strength, are given on page 62.

## TIDE TABLES.—CHARLOTTETOWN, P.E.I.—1920.

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Date	Day	NOVEMBER.								DECEMBER.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	M.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	1	W.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
2	Tu.	1:02	8·6	14:32	8·0	8:00	0·5	20:24	3·5	2	Th.	1:55	8·5	15:17	8·1	8:36	0·8	21:07	3·1
3	W.	1:52	8·4	15:29	7·7	8:52	0·9	21:19	3·6	3	F.	2:57	8·0	16:13	7·9	9:28	1·4	22:06	3·0
4	Th.	2:49	7·9	16:34	7·4	9:48	1·4	22:18	3·0	4	Sa.	4:05	7·5	17:11	7·7	10:23	2·0	23:07	2·8
5	F.	3:58	7·5	17:43	7·3	10:47	1·9	23:22	3·4	5	Su.	5:20	7·2	18:06	7·5	11:21	2·6	... ..	.. ..
6	Sa.	5:36	7·2	18:44	7·4	11:50	2·3	.....	.....	6	M.	6:39	7·1	18:57	7·5	0:08	2·6	12:21	3·1
7	Su.	6:56	7·2	19:38	7·5	0:28	3·0	12:54	2·6	7	Tu.	7:49	7·1	19:44	7·6	1:08	2·2	13:22	3·5
8	M.	9:05	7·6	21:06	7·7	2:30	2·0	14:50	3·0	8	W.	9:43	7·4	21:04	7·8	2:59	1·5	13:11	3·8
9	Tu.	9:57	7·8	21:44	7·8	3:24	1·4	15:42	3·0	9	Th.	10:31	7·5	21:42	7·9	3:50	1·2	16:00	3·9
10	W.	10:45	7·9	22:20	7·9	4:13	1·1	16:30	3·1	10	F.	11:16	7·6	22:20	7·9	4:37	1·1	16:46	3·9
11	Th.	11:30	7·9	22:55	8·0	4:59	0·8	17:13	3·1	11	Sa.	11:57	7·6	22:59	8·0	5:19	1·0	17:30	3·9
12	F.	12:13	7·9	23:30	8·1	5:41	0·7	17:54	3·1	12	Su.	12:36	7·7	23:38	8·0	5:59	1·1	18:12	3·8
13	Sa.	.....	12:53	7·8	6:21	0·8	18:34	3·1	13	M.	.....	13:12	7·7	6:37	1·2	18:53	3·8		
14	Su.	0:05	8·1	13:32	7·7	7:00	1·0	19:14	3·7	14	Tu.	0:18	8·0	13:45	7·6	7:14	1·4	19:33	3·8
15	M.	0:40	8·0	14:10	7·5	7:38	1·3	19:55	3·1	15	W.	0:58	7·8	14:17	7·5	7:50	1·7	20:14	3·7
16	Tu.	1:16	7·8	14:47	7·3	8:15	1·7	20:37	4·0	16	Th.	1:38	7·6	14:48	7·4	8:25	2·0	20:56	3·7
17	W.	1:54	7·6	15:25	7·2	8:54	2·1	21:21	4·0	17	F.	2:20	7·3	15:20	7·3	9:01	2·4	21:41	3·6
18	Th.	2:35	7·3	16:06	7·0	9:36	2·5	22:10	4·0	18	Sa.	3:06	7·0	15:56	7·3	9:40	2·8	22:31	3·4
19	F.	3:27	6·9	16:54	6·9	10:22	2·8	23:03	3·8	19	Su.	4:04	6·7	16:39	7·3	10:26	3·2	23:25	3·1
20	Sa.	4:36	6·6	17:49	7·0	11:14	3·1	.....	.....	20	M.	5:19	6·5	17:28	7·5	11:17	3·5	.....	.. ..
21	Su.	6:04	6·6	18:42	7·2	0:01	3·5	12:10	3·3	21	Tu.	6:42	6·6	18:26	7·7	0:21	2·6	12:15	3·7
22	M.	7:18	6·8	19:29	7·5	1:00	3·0	13:08	3·1	22	W.	7:54	6·9	19:23	8·0	1:18	2·1	13:18	3·9
23	Tu.	8:22	7·1	20:14	7·8	1:57	2·4	14:06	3·5	23	Th.	8:57	7·2	20:19	8·3	2:16	1·5	14:23	3·9
24	W.	9:19	7·4	20:58	8·2	2:51	1·8	15:03	3·5	24	F.	9:56	7·6	21:14	8·6	3:14	1·0	15:26	3·8
25	Th.	10:13	7·8	21:41	8·5	3:42	1·2	15:58	3·5	25	Sa.	10:51	8·0	22:08	8·8	4:10	0·5	16:25	3·6
26	F.	11:04	8·1	22:25	8·8	4:32	0·6	16:49	3·4	26	Su.	11:42	8·2	23:02	9·0	5:04	0·2	17:21	3·3
27	Sa.	11:54	8·3	23:12	8·9	5:21	0·2	17:39	3·3	27	M.	12:31	8·4	23:57	9·0	5:55	0·0	18:14	3·0
28	Su.	.....	12:43	8·4	6:09	0·1	18:28	3·3	28	Tu.	.....	13:19	8·5	6:45	0·0	19:06	2·7		
29	M.	0:03	8·9	13:33	8·5	6:57	0·1	19:18	3·2	29	W.	0:53	8·8	14:06	8·5	7:34	0·3	19:57	2·4
30	Tu.	0:58	8·8	14:24	8·4	7:46	0·3	20:11	3·2	30	Th.	1:50	8·5	14:53	8·3	8:22	0·8	20:48	2·3
										31	F.	2:49	8·1	15:40	8·1	9:11	1·4	21:40	2·2

The TIME used is Atlantic Standard, for the 60th Meridian; which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the average level of the lower Low Water at Spring tides, as ascertained by the tide gauge observations themselves.

TIDAL DIFFERENCES for Northumberland strait are given on page 10, and tables showing the turn of the TIDAL STREAMS in Northumberland strait and their strength, are given on page 62.

## TIDE TABLES.—HALIFAX, N.S.—1920.

Date.	Day.	JANUARY.								Date.	Day.	FEBRUARY.									
		HIGH WATER.				LOW WATER.						HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	Th.	2:59	6·0	15:40	5·4	10:03	1·4	22:08	1·7	1	Fr.	4:49	6·2	17:37	5·7	11:42	0·8	.....			
2	F.	4:04	6·3	16:54	5·7	11:04	1·1	23:11	1·6	2	M.	5:51	6·3	18:35	6·0	0:00	1·5	12:39	0·5		
3	Sa.	5:08	6·6	17:59	6·0	.....		12:02	0·7	3	Tu.	6:48	6·5	19:26	6·2	1:02	1·2	13:33	0·2		
4	Sa.	6:08	6·7	18:56	6·2	0:12	1·4	12:57	0·4	4	W.	7:42	6·6	20:15	6·4	1:57	1·0	14:22	0·1		
5	M.	7:04	6·9	19:47	6·4	1:10	1·2	13:48	0·1	5	Th.	8:32	6·6	21:03	6·5	2:48	0·9	15:07	0·2		
6	Tu.	7:57	6·9	20:36	6·6	2:06	1·1	14:38	0·0	6	F.	9:20	6·5	21:49	6·4	3:35	0·9	15:51	0·4		
7	W.	8:48	6·9	21:24	6·6	3:01	1·1	15:28	0·1	7	Sa.	10:06	6·3	22:33	6·4	4:21	1·0	16:34	0·7		
8	Th.	9:38	6·7	22:12	6·6	3:55	1·1	16:19	0·3	8	Sa.	10:51	6·1	23:16	6·2	5:08	1·2	17:20	1·2		
9	F.	10:27	6·5	22:59	6·4	4:49	1·3	17:09	0·7	9	M.	11:36	5·8	.....		5:57	1·5	18:09	1·6		
10	Sa.	11:15	6·2	23:47	6·2	5:44	1·5	18:00	1·1	10	Tu.	0:00	5·9	12:22	5·5	6:50	1·7	19:02	2·0		
11	Sa.	.....	12:04	5·9	6:40	1·7	18:53	1·4	11	W.	0:46	5·7	13:12	5·2	7:45	1·9	19:58	2·3			
12	M.	0:36	6·0	12:54	5·5	7:37	1·8	19:47	1·8	12	Th.	1:36	5·5	14:07	4·9	8:39	2·0	20:53	2·4		
13	Tu.	1:26	5·8	13:48	5·2	8:33	2·0	20:40	2·1	13	F.	2:33	5·3	15:10	4·8	9:32	2·0	21:46	2·5		
14	W.	2:20	5·6	14:48	5·0	9:25	2·0	21:31	2·3	14	Sa.	3:36	5·2	16:18	4·8	10:24	1·9	22:36	2·5		
15	Th.	3:18	5·5	15:32	5·0	10:15	2·0	22:21	2·5	15	Sa.	4:40	5·2	17:21	4·9	11:14	1·7	23:25	2·3		
16	F.	4:19	5·5	16:57	5·0	11:03	1·9	23:11	2·5	16	M.	5:32	5·4	18:09	5·1	.....	12:00	1·5			
17	Sa.	5:15	5·6	17:55	5·2	11:50	1·8	.....		17	Tu.	6:17	5·6	18:50	5·3	0:12	2·1	12:42	1·2		
18	Sa.	6:04	5·7	18:43	5·3	0:00	2·4	12:34	1·5	18	W.	6:59	5·8	19:28	5·6	0:56	1·8	13:20	1·0		
19	M.	6:46	5·8	19:22	5·5	0:45	2·3	13:15	1·3	19	Th.	7:39	5·9	20:05	5·7	1:37	1·5	13:56	0·8		
20	Tu.	7:26	6·0	19:59	5·6	1:25	2·1	13:52	1·1	20	F.	8:18	6·0	20:42	5·9	2:16	1·3	14:31	0·7		
21	W.	8:04	6·0	20:35	5·7	2:01	2·0	14:26	1·0	21	Sa.	8:57	6·1	21:20	6·1	2:54	1·1	15:07	0·7		
22	Th.	8:41	6·0	21:10	5·8	2:35	1·9	14:58	0·9	22	Sa.	9:37	6·2	22:00	6·2	3:33	1·0	15:44	0·8		
23	F.	9:18	6·1	21:46	5·9	3:08	1·7	15:31	0·9	23	M.	10:18	6·1	22:42	6·2	4:13	1·1	16:24	1·0		
24	Sa.	9:56	6·1	22:24	6·0	3:44	1·6	16:06	1·0	24	Tu.	11:01	6·0	23:28	6·2	4:56	1·2	17:08	1·3		
25	Sa.	10:36	6·0	23:05	6·1	4:28	1·7	16:47	1·2	25	W.	11:49	5·8	.....		5:57	1·3	18:04	1·6		
26	M.	11:20	5·9	23:49	6·1	5:21	1·7	17:35	1·4	26	Th.	0:18	6·0	12:42	5·5	7:17	1·4	19:12	1·8		
27	Tu.	.....	12:09	5·8	6:22	1·7	18:30	1·6	27	F.	1:12	5·9	13:46	5·3	8:28	1·3	20:38	1·9			
28	W.	0:37	6·1	13:03	5·6	7:30	1·7	19:31	1·7	28	Sa.	2:13	5·7	15:00	5·2	9:31	1·2	21:48	1·9		
29	Th.	1:31	6·0	14:05	5·4	8:37	1·5	20:36	1·8	29	Sa.	3:22	5·6	16:17	5·3	10:30	1·0	22:54	1·7		
30	F.	2:33	6·0	15:17	5·4	9:42	1·3	21:44	1·8												
31	Sa.	3:43	6·0	16:30	5·5	10:43	1·1	22:53	1·7												

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at ordinary Spring tides; which is the Datum of the Admiralty chart of Halifax harbour.

The DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 23·4 feet to the height of High Water as above given. The TIDAL DIFFERENCES referred to Halifax are given on page 6.

		MARCH.										APRIL.							
Date.	Day.	HIGH WATER.				LOW WATER.				Date.	Day.	HIGH WATER.				LOW WATER.			
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			H.M.	FT.	H.M.	FT.	H.M.	FT.	H.M.	FT.
1	M.	4:36	5·7	17:24	5·5	11:27	0·8	23:55	1·4	1	Th.	6:22	5·7	18:44	5·9	0:35	1·0	12:50	0·7
2	Tu.	5:40	5·9	18:18	5·8	.....	....	12:21	0·6	2	F.	7:09	5·9	19:26	6·1	1:23	0·7	13:35	0·7
3	W.	6:35	6·1	19:06	6·1	0:52	1·1	13:12	0·4	3	Sa.	7:52	6·0	20:07	6·1	2:05	0·6	14:15	0·8
4	Th.	7:24	6·2	19:51	6·2	1:43	0·8	14:00	0·3	4	So.	8:34	6·0	20:47	6·2	2:42	0·6	14:51	1·0
5	F.	8:10	6·3	20:34	6·3	2:30	0·7	14:43	0·4	5	M.	9:15	5·9	21:28	6·0	3:18	0·7	15:26	1·2
6	Sa.	8:54	6·4	21:15	6·3	3:10	0·7	15:22	0·6	6	Tu.	9:56	5·8	22:09	5·9	3:53	0·8	16:00	1·5
7	So.	9:37	6·2	21:56	6·2	3:49	0·8	16:00	1·0	7	W.	10:37	5·6	22:50	5·7	4:29	1·1	16:33	1·9
8	M.	10:20	5·9	22:38	6·0	4:28	1·0	16:37	1·3	8	Th.	11:20	5·4	23:32	5·4	5:08	1·3	17:10	2·2
9	Tu.	11:04	5·7	23:22	5·8	5:10	1·3	17:16	1·7	9	F.	.....	.....	12:06	5·1	5:52	1·5	18:02	2·4
10	W.	11:50	5·4	.....	.....	5:57	1·5	18:00	2·1	10	Sa.	0:17	5·1	12:55	4·9	6:50	1·7	19:20	2·5
11	Th.	0:08	5·5	12:38	5·1	6:52	1·7	18:57	2·4	11	So.	1:07	4·9	13:50	4·8	7:55	1·8	20:31	2·4
12	F.	0:57	5·3	13:28	4·9	7:52	1·9	20:05	2·5	12	M.	2:03	4·8	14:47	4·8	8:52	1·7	21:26	2·3
13	Sa.	1:50	5·0	14:25	4·7	8:50	1·9	21:09	2·5	13	Tu.	3:05	4·8	15:45	5·0	9:42	1·6	22:17	2·0
14	So.	2:51	4·9	15:32	4·7	9:43	1·8	22:04	2·4	14	W.	4:08	5·0	16:40	5·2	10:31	1·4	23:06	1·6
15	M.	3:54	4·9	16:36	4·9	10:31	1·7	22:54	2·2	15	Th.	5:07	5·2	17:28	5·5	11:19	1·2	23:54	1·2
16	Tu.	4:52	5·1	17:30	5·1	11:16	1·4	23:42	1·9	16	F.	5:57	5·5	18:12	5·9	.....	....	12:06	1·0
17	W.	5:44	5·4	18:15	5·3	.....	.....	12:00	1·2	17	Sa.	6:42	5·8	18:55	6·2	0:41	0·8	12:52	0·8
18	Th.	6:30	5·7	18:55	5·7	0:27	1·5	12:43	0·9	18	So.	7:26	6·0	19:39	6·4	1:27	0·4	13:36	0·7
19	F.	7:12	5·9	19:34	5·9	1:10	1·1	13:25	0·7	19	M.	8:11	6·2	20:24	6·6	2:12	0·2	14:19	0·7
20	Sa.	7:53	6·0	20:13	6·2	1:52	0·8	14:06	0·6	20	Tu.	8:58	6·2	21:10	6·6	2:58	0·1	15:04	0·8
21	So.	8:34	6·2	20:53	6·3	2:33	0·6	14:46	0·6	21	W.	9:47	6·2	21:59	6·5	3:46	0·1	15:54	1·0
22	M.	9:16	6·2	21:34	6·4	3:15	0·5	15:25	0·7	22	Th.	10:38	6·0	22:51	6·2	4:39	0·3	16:54	1·3
23	Tu.	10:01	6·1	22:18	6·3	4:00	0·5	16:06	1·0	23	F.	11:31	5·8	23:46	5·9	5:39	0·5	18:03	1·6
24	W.	10:50	6·0	23:06	6·2	4:51	0·7	16:54	1·3	24	Sa.	.....	.....	12:26	5·6	6:44	0·8	19:18	1·7
25	Th.	11:42	5·8	23:58	6·0	5:51	0·9	17:54	1·6	25	So.	0:44	5·5	13:26	5·4	7:51	0·9	20:27	1·6
26	F.	.....	.....	12:38	5·5	7:00	1·0	19:22	1·8	26	M.	1:46	5·2	14:30	5·3	8:52	1·0	21:30	1·6
27	Sa.	0:55	5·7	13:38	5·2	8:08	1·1	20:38	1·8	27	Tu.	2:54	5·1	15:36	5·4	9:48	1·1	22:29	1·4
28	So.	1:59	5·4	14:46	5·1	9:11	1·1	21:43	1·7	28	W.	4:06	5·1	16:38	5·5	10:42	1·1	23:24	1·2
29	M.	3:13	5·3	16:03	5·3	10:10	1·0	22:44	1·5	29	Th.	5:09	5·2	17:33	5·7	11:34	1·2	.....	.....
30	Tu.	4:25	5·3	17:07	5·5	11:06	0·9	23:42	1·2	30	F.	6:02	5·4	18:18	5·5	0:14	1·0	12:22	1·2
31	W.	5:28	5·5	17:59	5·8	.....	.....	12:00	0·8										

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at ordinary Spring tides; which is the Datum of the Admiralty chart of Halifax harbour.

The DRY DOCK.—To find the depth of water on the sill of this dock at any time, add 23·4 feet to the height of High Water as above given. The FIDAL DIFFERENCES referred to Halifax are given on page 6.

## TIDE TABLES.—HALIFAX, N.S.—1920.

Date.	Day.	MAY.								JUNE.									
		HIGH WATER.				LOW WATER				HIGH WATER.				LOW WATER					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	Sa.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	1	Tu.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
2	Su.	6:48	5·6	18:59	6·0	1:00	0·8	13:05	1·2	2	W.	7:49	5·5	19:57	5·9	1:54	0·9	13:57	1·8
3	M.	7:30	5·7	19:39	6·0	1:41	0·7	13:43	1·3	3	Th.	8:28	5·5	20:35	5·9	2:28	0·8	14:31	1·9
4	Tu.	8:11	5·7	20:19	6·0	2:18	0·7	14:19	1·5	4	F.	9:08	5·5	21:13	5·8	3:01	0·8	15:04	2·0
5	W.	8:51	5·7	21:00	6·0	2:52	0·7	14:54	1·6	5	Sa.	9:47	5·5	21:52	5·7	3:33	0·9	15:38	2·0
6	Th.	9:31	5·6	21:40	5·8	3:25	0·8	15:28	1·8	6	Su.	10:26	5·4	22:32	5·5	4:07	1·0	16:15	2·1
7	F.	10:13	5·5	22:19	5·6	3:58	1·0	16:03	2·0	7	M.	11:06	5·4	23:13	5·4	4:44	1·1	16:57	2·2
8	Sa.	10:55	5·4	22:59	5·4	4:33	1·1	16:42	2·2	8	Tu.	11:46	5·4	23:56	5·3	5:26	1·3	17:49	2·3
9	Su.	11:38	5·2	23:41	5·2	5:14	1·3	17:30	2·3	9	W.	.....	.....	12:28	5·4	6:14	1·5	18:57	2·2
10	M.	.....	.....	12:22	5·1	6:03	1·5	18:30	2·4	10	Th.	0:42	5·2	13:13	5·4	7:09	1·5	20:04	2·0
11	Tu.	0:27	5·0	13:08	5·1	6:58	1·6	19:37	2·4	11	F.	1:33	5·1	14:04	5·6	8:06	1·6	21:04	1·8
12	W.	1:18	4·9	13:57	5·1	7:57	1·6	20:42	2·2	12	Sa.	2:30	5·1	15:00	5·7	9:04	1·5	22:01	1·4
13	Th.	2:17	4·9	14:50	5·2	8:54	1·5	21:39	1·9	13	Su.	3:35	5·2	16:00	6·0	10:02	1·5	22:57	1·0
14	F.	3:22	5·0	15:50	5·5	9:47	1·5	22:33	1·5	14	M.	4:46	5·4	17:03	6·2	10:59	1·3	23:52	0·6
15	Sa.	4:24	5·2	16:45	5·8	10:39	1·3	23:26	1·1	15	Tu.	5:48	5·7	18:02	6·5	11:56	1·2	.....	.....
16	Su.	5:19	5·5	17:36	6·1	11:31	1·1	.....	.....	16	W.	6:44	6·0	18:56	6·7	0:46	0·2	12:52	1·1
17	M.	6:11	5·8	18:25	6·5	0:08	0·7	12:23	1·0	17	Th.	7:36	6·2	19:48	6·8	1:39	0·1	13:47	1·0
18	Tu.	7:01	6·0	19:13	6·7	1:08	0·3	13:14	0·8	18	F.	8:27	6·3	20:39	6·8	2:31	0·3	14:43	0·9
19	W.	7:50	6·2	20:01	6·8	1:56	0·0	14:04	0·8	19	Sa.	9:17	6·4	21:30	6·6	3:22	0·3	15:40	1·0
20	Th.	8:40	6·3	20:50	6·7	2:48	-0·2	14:53	0·8	20	Su.	10:07	6·3	22:21	6·4	4:13	0·1	16:39	1·1
21	F.	9:31	6·3	21:41	6·5	3:32	-0·2	15:48	1·0	21	M.	10:58	6·2	23:13	6·1	5:05	0·2	17:40	1·3
22	Sa.	10:23	6·2	22:34	6·2	4:24	0·0	16:50	1·3	22	Tu.	11:50	6·1	.....	.....	6:00	0·5	18:44	1·4
23	Su.	11:16	6·0	23:28	5·9	5:22	0·3	17:58	1·5	23	W.	0:07	5·7	12:43	5·9	6:59	0·9	19:47	1·5
24	M.	.....	.....	12:10	5·8	6:25	0·6	19:08	1·5	24	Th.	1:04	5·4	13:38	5·7	8:00	1·2	20:44	1·5
25	Tu.	0:24	5·6	13:06	5·7	7:30	0·8	20:11	1·6	25	F.	2:05	5·1	14:37	5·6	8:56	1·5	21:38	1·5
26	W.	1:24	5·2	14:05	5·5	8:29	1·0	21:09	1·5	26	Sa.	3:10	4·9	15:38	5·5	9:49	1·8	22:30	1·5
27	Th.	2:20	5·1	15:07	5·5	9:24	1·2	22:05	1·4	27	Su.	4:17	4·9	16:35	5·6	10:39	2·0	23:19	1·5
28	F.	3:11	5·0	16:11	5·6	10:17	1·5	22:59	1·3	28	M.	5:15	5·0	17:24	5·6	11:27	2·2	.....	.....
29	Sa.	4:46	5·1	17:10	5·7	11:08	1·6	23:50	1·2	29	Tu.	6:05	5·1	18:08	5·7	0:05	1·4	12:11	2·2
30	Su.	5:42	5·2	17:57	5·8	11:57	1·7	.....	.....	30	W.	6:49	5·2	18:50	5·8	0:47	1·2	12:52	2·1
31	M.	6:28	5·3	18:38	5·9	0:37	1·1	12:42	1·8	.....	.....	7:30	5·3	19:31	5·8	1:25	1·1	13:30	2·1

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at ordinary Spring tides; which is the Datum of the Admiralty chart of Halifax harbour.

The DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 23·4 feet to the height of High Water as above given. The TIDAL DIFFERENCES referred to Halifax are given on page 6.

Date.	JULY.								Date.	AUGUST.									
	HIGH WATER.		LOW WATER.			HIGH WATER.		LOW WATER.			HIGH WATER.		LOW WATER.						
	Day.	Time. H't.	H. M. FT.	Day.	Time. H't.	H. M. FT.	Day.	Time. H't.	H. M. FT.	Day.	Time. H't.	H. M. FT.	Day.	Time. H't.	H. M. FT.	Day.	Time. H't.		
1	Th.	8:10	5·5	20:11	5·9	1:59	1·0	14:06	2·0	1	5	8:54	5·6	21:01	5·9	2:43	0·8	14:54	1·6
2	F.	8:49	5·5	20:49	5·8	2:32	0·9	14:41	1·9	2	M.	9:30	5·7	21:37	5·8	3:12	0·8	15:26	1·5
3	Sa.	9:27	5·5	21:26	5·8	3:04	0·8	15:15	1·9	3	Tu.	10:08	5·8	22:15	5·8	3:44	0·9	16:03	1·5
4	Mo.	10:04	5·5	22:03	5·7	3:37	0·9	15:51	1·9	4	W.	10:47	5·9	22:56	5·7	4:22	1·0	16:48	1·6
5	M.	10:40	5·6	22:41	5·6	4:12	1·0	16:30	1·9	5	Th.	11:27	5·9	23:42	5·6	5:05	1·2	17:43	1·6
6	Tu.	11:16	5·6	23:22	5·5	4:52	1·2	17:18	2·0	6	F.	... ...	...	12:09	6·0	5:56	1·4	18:47	1·6
7	W.	11:54	5·7	.....	.....	5:37	1·3	18:17	2·0	7	Sa.	0:33	5·4	12:56	5·9	6:54	1·7	19:58	1·5
8	Th.	0:07	5·5	12:36	5·8	6:27	1·5	19:24	1·8	8	Mo.	1:31	5·2	13:54	5·9	7:58	1·8	21:06	1·3
9	F.	0:56	5·3	13:24	5·8	7:22	1·6	20:29	1·7	9	M.	2:40	5·1	15:01	5·8	9:07	1·8	22:09	1·1
10	Sa.	1:53	5·2	14:22	5·9	8:22	1·7	21:31	1·4	10	Tu.	3:54	5·2	16:12	5·9	10:17	1·7	23:08	0·8
11	Mo.	2:59	5·2	15:28	6·0	9:26	1·7	22:30	1·1	11	W.	5:02	5·5	17:18	6·1	11:25	1·5	.....	.....
12	M.	4:12	5·3	16:38	6·2	10:33	1·6	23:27	0·7	12	Th.	6:01	5·8	18:17	6·3	0:05	0·4	12:27	1·2
13	Tu.	5:20	5·6	17:41	6·5	11:37	1·4	.....	.....	13	F.	6:55	6·1	19:11	6·5	1:00	0·1	13:25	0·9
14	W.	6:20	5·9	18:37	6·6	0:23	0·3	12:37	1·2	14	Sa.	7:46	6·3	20:03	6·6	1:51	—0·1	14:18	0·6
1	Th.	7:14	6·1	19:29	6·7	1:17	0·0	13:35	1·0	15	Mo.	8:34	6·5	20:52	6·5	2:39	—0·1	15:07	0·6
16	F.	8:06	6·3	20:19	6·7	2:09	—0·3	14:31	0·8	16	M.	9:21	6·5	21:40	6·4	3:25	0·1	15:55	0·7
17	Sa.	8:57	6·5	21:08	6·6	3:00	—0·3	15:26	0·8	17	Tu.	10:07	6·5	22:27	6·2	4:10	0·4	16:44	0·9
18	Mo.	9:47	6·5	21:58	6·4	3:50	—0·1	16:21	0·9	18	W.	10:52	6·3	23:15	5·9	4:56	0·8	17:35	1·2
19	M.	10:36	6·4	22:48	6·1	4:41	0·2	17:17	1·1	19	Th.	11:38	6·0	.....	.....	5:45	1·3	18:30	1·4
20	Tu.	11:23	6·2	23:39	5·8	5:33	0·6	18:14	1·2	20	F.	0:04	5·5	12:27	5·7	6:40	1·7	19:29	1·6
21	W.	.....	12:11	6·0	6:27	1·0	19:11	1·4	21	Sa.	0:54	5·2	13:18	5·5	7:37	2·1	20:24	1·8	
22	Th.	0:31	5·4	13:01	5·8	7:22	1·4	20:06	1·6	22	Mo.	1:48	5·9	14:14	5·3	8:35	2·3	21:16	1·8
23	F.	1:25	5·1	13:53	5·5	8:18	1·8	21:00	1·7	23	M.	2:49	4·8	15:16	5·1	9:31	2·5	22:07	1·8
24	Sa.	2:24	4·9	14:51	5·4	9:12	2·1	21:52	1·7	24	Tu.	4:03	4·7	16:22	5·1	10:25	2·4	22:57	1·7
25	Mo.	3:29	2·7	15:54	5·4	10:04	2·3	22:42	1·7	25	W.	5:07	4·8	17:17	5·3	11:16	2·3	23:45	1·5
26	M.	4:39	4·8	16:52	5·4	10:54	2·4	23:31	1·5	26	Th.	5:54	5·0	18:04	5·5	.....	.....	12:04	2·1
27	Tu.	5:39	4·9	17:44	5·5	11:43	2·3	.....	.....	27	F.	6:34	5·2	18:45	5·6	0:28	1·3	12:47	1·9
28	W.	6:29	5·1	18:30	5·6	0:17	1·4	12:30	2·2	28	Sa.	7:12	5·4	19:24	5·8	1:05	1·1	13:25	1·6
29	Th.	7:09	5·2	19:10	5·7	1:00	1·2	13:13	2·0	29	Mo.	7:48	5·6	20:02	5·9	1:39	0·9	13:59	1·3
30	F.	7:45	5·3	19:48	5·8	1:39	1·0	13:50	1·9	30	M.	8:23	5·8	20:39	6·0	2:12	0·8	14:32	1·2
31	Sa.	8:19	5·5	20:25	5·8	2:13	0·8	14:23	1·7	31	Tu.	8:58	6·0	21:16	6·0	2:44	0·7	15:06	1·1

The TIME used in Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at ordinary Spring tides; which is the Datum of the Admiralty chart of Halifax harbour.

The DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 23·4 feet to the height of High Water as above given. THE TIDAL DIFFERENCES referred to Halifax are given on page 6.

## TIDE TABLES.—HALIFAX, N.S.—1920.

		SEPTEMBER.										OCTOBER.							
Date.	Day.	HIGH WATER.				LOW WATER.				Date.	Day.	HIGH WATER.				LOW WATER.			
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.
		H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.			H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.
1	W.	9:34	6·1	21:54	6·0	3:18	0·8	15:44	1·1	1	F.	9:52	6·4	22:24	6·0	3:37	1·1	16:15	0·8
2	Th.	10:12	6·1	22:35	5·9	3:55	1·0	16:28	1·1	2	Sa.	10:36	6·3	23:12	5·9	4:21	1·4	17:08	1·0
3	F.	10:54	6·1	23:21	5·8	4:36	1·3	17:19	1·3	3	S.	11:24	6·1	.....	.....	5:13	1·7	18:15	1·1
4	Sa.	11:42	6·1	.....	.....	5:27	1·5	18:23	1·3	4	M.	0:03	5·6	12:16	5·9	6:25	1·9	19:26	1·2
5	S.	0:13	5·5	12:36	5·9	6:31	1·8	19:39	1·4	5	Tu.	0:59	5·3	13:15	5·7	7:48	2·0	20:33	1·2
6	M.	1:12	5·3	13:36	5·7	7:50	1·9	20:48	1·3	6	W.	2:04	5·4	14:26	5·5	9:02	1·9	21:36	1·1
7	Tu.	2:18	5·1	14:43	5·6	9:06	1·9	21:51	1·1	7	Th.	3:21	5·4	15:42	5·5	10:07	1·7	22:35	1·1
8	W.	3:30	5·2	15:54	5·7	10:15	1·7	22:51	0·9	8	F.	4:28	5·6	16:49	5·6	11:07	1·4	23:30	0·9
9	Th.	4:43	5·4	17:03	5·8	11:19	1·4	23:49	0·6	9	Sa.	5:25	5·9	17:48	5·8	.....	.....	12:03	1·2
10	F.	5:47	5·8	18:04	6·1	.....	.....	12:18	1·1	10	S.	6:14	6·1	18:42	6·0	0:22	0·8	12:54	0·9
11	Sa.	6:41	6·1	18:57	6·3	0:42	0·4	13:11	0·8	11	M.	7:01	6·3	19:30	6·1	1:10	0·8	13:39	0·8
12	S.	7:27	6·3	19:46	6·4	1:31	0·3	14:00	0·6	12	Tu.	7:45	6·5	20:14	6·2	1:53	0·9	14:20	0·7
13	M.	8:11	6·5	20:32	6·4	2:17	0·3	14:44	0·5	13	W.	8:27	6·5	20:56	6·2	2:31	1·1	15:00	0·7
14	Tu.	8:54	6·5	21:17	6·3	2:58	0·5	15:25	0·6	14	Th.	9:08	6·4	21:37	6·0	3:07	1·3	15:38	0·8
15	W.	9:36	6·4	22:01	6·1	3:37	0·8	16:06	0·8	15	F.	9:49	6·2	22:19	5·9	3:42	1·6	16:15	1·1
16	Th.	10:19	6·2	22:46	5·9	4:15	1·2	16:50	1·1	16	Sa.	10:31	6·0	23:03	5·7	4:20	1·9	16:54	1·4
17	F.	11:03	6·0	23:32	5·6	4:57	1·6	17:43	1·4	17	S.	11:15	5·7	23:50	5·4	5:03	2·2	17:39	1·6
18	Sa.	11:49	5·7	.....	.....	5:48	2·0	18:40	1·7	18	M.	.....	.....	12:02	5·4	5:54	2·5	18:36	1·8
19	S.	0:21	5·3	12:38	5·4	6:52	2·3	19:38	1·8	19	Tu.	0:40	5·2	12:52	5·2	7:06	2·6	19:40	1·9
20	M.	1:12	5·0	13:31	5·1	7:58	2·5	20:34	1·9	20	W.	1:33	5·0	13:47	5·0	8:17	2·6	20:38	1·9
21	Tu.	2:08	4·8	14:31	5·0	8:58	2·5	21:25	1·9	21	Th.	2:30	5·0	14:48	5·0	9:14	2·5	21:29	1·9
22	W.	3:14	4·8	15:38	5·0	9:54	2·5	22:13	1·7	22	F.	3:30	5·1	15:51	5·1	10:04	2·3	22:16	1·8
23	Th.	4:19	4·9	16:36	5·1	10:44	2·3	22:59	1·6	23	Sa.	4:26	5·3	16:47	5·3	10:51	2·0	23:01	1·6
24	F.	5:12	5·1	17:26	5·3	11:30	2·1	23:43	1·4	24	S.	5:14	5·6	17:35	5·5	11:37	1·6	23:45	1·4
25	Sa.	5:57	5·3	18:10	5·6	.....	.....	12:12	1·7	25	M.	5:57	5·9	18:20	5·8	.....	.....	12:22	1·3
26	S.	6:38	5·6	18:51	5·8	0:25	1·2	12:52	1·4	26	Tu.	6:39	6·2	19:04	6·0	0:28	1·2	13:06	0·9
27	M.	7:16	5·9	19:31	5·9	1:05	1·0	13:31	1·1	27	W.	7:21	6·5	19:48	6·2	1:10	1·1	13:49	0·6
28	Tu.	7:53	6·1	20:12	6·1	1:43	0·9	14:09	0·8	28	Th.	8:03	6·7	20:33	6·3	1:53	1·0	14:32	0·4
29	W.	8:31	6·3	20:54	6·1	2:20	0·9	14:48	0·7	29	F.	8:46	6·7	21:20	6·3	2:38	1·1	15:17	0·4
30	Th.	9:11	6·4	21:38	6·2	2:57	0·9	15:29	0·7	30	Sa.	9:32	6·7	22:10	6·2	3:26	1·2	16:06	0·5
										31	S.	10:21	6·5	23:02	6·1	4:18	1·5	17:02	0·7

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at ordinary Spring tides; which is the Datum of the Admiralty chart of Halifax harbour.

The DRY DOCK.—To find the depth of water on the sill of this dock at any tide, add 23·4 feet to the height of High Water as above given. The TIDAL DIFFERENCES referred to Halifax are given on page 6.

		NOVEMBER.										DECEMBER.								
Date.	Dry.	HIGH WATER.				LOW WATER.				Date.	Day.	HIGH WATER.				LOW WATER.				
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	
1	M.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	1	W.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.	
2	Tu.	11:13 6·2	23:56 5·9	5:19 1·8	18:05 0·9	12:08 5·9	6:32 1·9	19:11 1·1	11:53 6·1	.....	2	Th.	0:36 6·0	12:51 5·8	7:35 1·8	19:53 1·2	6:27 1·7	18:50 1·0	.....	.....
3	W.	0:53 5·7	13:08 5·7	7:47 1·9	20:16 1·2	.....	.....	.....	1:33 5·9	13:55 5·5	3	F.	2:34 5·8	15:01 5·3	9:36 1·7	20:51 1·4	.....	.....	.....	.....
4	Th.	1:54 5·7	14:14 5·4	8:55 1·8	21:16 1·2	1:54 5·7	14:14 5·4	8:55 1·8	2:34 5·8	15:01 5·3	4	Sa.	2:34 5·8	15:01 5·3	9:36 1·7	21:47 1·7	21:47 1·7	21:47 1·7	21:47 1·7	21:47 1·7
5	F.	3:01 5·6	15:24 5·4	9:57 1·7	22:12 1·3	3:01 5·6	15:24 5·4	9:57 1·7	3:39 5·8	16:10 5·3	5	S.	3:39 5·8	16:10 5·3	10:33 1·6	22:42 1·8	10:33 1·6	10:33 1·6	10:33 1·6	10:33 1·6
6	Sa.	4:06 5·8	16:30 5·5	10:54 1·5	23:06 1·4	4:06 5·8	16:30 5·5	10:54 1·5	4:39 5·9	17:10 5·5	6	M.	4:39 5·9	17:10 5·5	11:27 1·5	23:35 2·0	11:27 1·5	11:27 1·5	11:27 1·5	11:27 1·5
7	S.	5:03 5·9	17:29 5·6	11:48 1·3	23:58 1·4	5:03 5·9	17:29 5·6	11:48 1·3	5:32 6·0	18:02 5·6	7	Tu.	5:32 6·0	18:02 5·6	.....	12:17 1·4	.....	.....	.....	.....
8	M.	5:54 6·1	18:21 5·8	.....	12:36 1·1	5:54 6·1	18:21 5·8	.....	6:18 6·1	18:48 5·7	8	W.	6:18 6·1	18:48 5·7	0:25 2·0	13:02 1·2	0:25 2·0	0:25 2·0	0:25 2·0	0:25 2·0
9	Tu.	6:41 6·3	19:06 5·9	0:47 1·4	13:19 1·0	6:41 6·3	19:06 5·9	0:47 1·4	6:59 6·2	19:30 5·8	9	Th.	6:59 6·2	19:30 5·8	1:09 2·0	13:41 1·2	1:09 2·0	1:09 2·0	1:09 2·0	1:09 2·0
10	W.	7:23 6·4	19:49 6·0	1:20 1·5	14:00 0·9	7:23 6·4	19:49 6·0	1:20 1·5	7:39 6·2	20:11 5·8	10	F.	7:39 6·2	20:11 5·8	1:48 2·1	14:15 1·1	1:48 2·1	1:48 2·1	1:48 2·1	1:48 2·1
11	Th.	8:04 6·3	20:31 6·0	2:08 1·6	14:38 0·9	8:04 6·3	20:31 6·0	2:08 1·6	8:19 6·2	20:51 5·8	11	Sa.	8:19 6·2	20:51 5·8	2:24 2·1	14:48 1·1	2:24 2·1	2:24 2·1	2:24 2·1	2:24 2·1
12	F.	8:44 6·3	21:13 5·9	2:43 1·8	15:14 1·0	8:44 6·3	21:13 5·9	2:43 1·8	8:58 6·1	21:31 5·8	12	S.	8:58 6·1	21:31 5·8	2:58 2·2	15:20 1·1	2:58 2·2	2:58 2·2	2:58 2·2	2:58 2·2
13	Sa.	9:25 6·2	21:56 5·8	3:17 2·0	15:49 1·1	9:25 6·2	21:56 5·8	3:17 2·0	9:38 6·0	22:12 5·7	13	M.	9:38 6·0	22:12 5·7	3:31 2·2	15:54 1·2	3:31 2·2	3:31 2·2	3:31 2·2	3:31 2·2
14	S.	10:06 6·0	22:40 5·7	3:52 2·2	16:24 1·3	10:06 6·0	22:40 5·7	3:52 2·2	10:19 5·9	22:53 5·7	14	Tu.	10:19 5·9	22:53 5·7	4:05 2·3	16:30 1·4	4:05 2·3	4:05 2·3	4:05 2·3	4:05 2·3
15	M.	10:48 5·8	23:25 5·5	4:30 2·4	17:01 1·5	10:48 5·8	23:25 5·5	4:30 2·4	11:00 5·7	23:34 5·6	15	W.	11:00 5·7	23:34 5·6	4:43 2·4	17:09 1·6	4:43 2·4	4:43 2·4	4:43 2·4	4:43 2·4
16	Tu.	11:31 5·5	.....	5:18 2·5	17:43 1·6	11:31 5·5	.....	5:18 2·5	11:42 5·6	.....	16	Th.	11:42 5·6	.....	5:30 2·4	17:54 1·7	5:30 2·4	5:30 2·4	5:30 2·4	5:30 2·4
17	W.	0:09 5·4	12:16 5·4	6:18 2·6	18:37 1·9	0:09 5·4	12:16 5·4	6:18 2·6	0:14 5·6	12:25 5·5	17	F.	0:14 5·6	12:25 5·5	6:28 2·5	18:44 1·9	6:28 2·5	6:28 2·5	6:28 2·5	6:28 2·5
18	Th.	0:55 5·3	13:04 5·2	7:25 2·6	19:36 1·9	0:55 5·3	13:04 5·2	7:25 2·6	0:55 5·6	13:12 5·4	18	Sa.	0:55 5·6	13:12 5·4	7:33 2·4	19:37 1·9	7:33 2·4	7:33 2·4	7:33 2·4	7:33 2·4
19	F.	1:43 5·3	13:58 5·1	8:24 2·5	20:32 1·9	1:43 5·3	13:58 5·1	8:24 2·5	1:40 5·7	14:03 5·3	20	M.	1:40 5·7	14:03 5·3	8:34 2·2	20:32 2·0	8:34 2·2	8:34 2·2	8:34 2·2	8:34 2·2
20	Sa.	2:34 5·4	14:56 5·2	9:18 2·3	21:25 1·9	2:34 5·4	14:56 5·2	9:18 2·3	2:31 5·8	15:01 5·4	21	Tu.	2:31 5·8	15:01 5·4	9:31 1·9	21:28 1·9	9:31 1·9	9:31 1·9	9:31 1·9	9:31 1·9
21	S.	3:27 5·6	15:57 5·3	10:09 2·0	22:16 1·8	3:27 5·6	15:57 5·3	10:09 2·0	3:30 6·0	16:06 5·5	22	W.	3:30 6·0	16:06 5·5	10:27 1·6	22:25 1·8	10:27 1·6	10:27 1·6	10:27 1·6	10:27 1·6
22	M.	4:20 5·8	16:54 5·6	10:59 1·6	23:05 1·6	4:20 5·8	16:54 5·6	10:59 1·6	4:35 6·2	17:15 5·7	23	Th.	4:35 6·2	17:15 5·7	11:22 1·2	23:24 1·7	11:22 1·2	11:22 1·2	11:22 1·2	11:22 1·2
23	Tu.	5:11 6·1	17:46 5·8	11:49 1·2	23:53 1·5	5:11 6·1	17:46 5·8	11:49 1·2	5:34 6·6	18:14 6·0	24	F.	5:34 6·6	18:14 6·0	.....	12:17 0·8	.....	.....	.....	.....
24	W.	6:01 6·5	18:36 6·1	12:38 0·8	23:53 1·5	6:01 6·5	18:36 6·1	12:38 0·8	6:27 6·8	19:07 6·2	25	Sa.	6:27 6·8	19:07 6·2	0:23 1·5	13:10 0·4	0:23 1·5	0:23 1·5	0:23 1·5	0:23 1·5
25	Th.	6:50 6·8	19:25 6·3	0:42 1·3	13:26 0·5	6:50 6·8	19:25 6·3	0:42 1·3	7:18 6·9	19:58 6·5	26	S.	7:18 6·9	19:58 6·5	1:20 1·2	14:01 0·1	1:20 1·2	1:20 1·2	1:20 1·2	1:20 1·2
26	F.	7:38 6·9	20:15 6·4	1:32 1·2	14:14 0·3	7:38 6·9	20:15 6·4	1:32 1·2	8:08 7·0	20:47 6·6	27	M.	8:08 7·0	20:47 6·6	2:15 1·1	14:51 0·0	2:15 1·1	2:15 1·1	2:15 1·1	2:15 1·1
27	Sa.	8:26 7·0	21:06 6·5	2:23 1·2	15:03 0·2	8:26 7·0	21:06 6·5	2:23 1·2	8:59 6·9	21:36 6·6	28	Tu.	8:59 6·9	21:36 6·6	3:09 1·1	15:42 0·1	3:09 1·1	3:09 1·1	3:09 1·1	3:09 1·1
28	S.	9:15 6·9	21:57 6·4	3:16 1·3	15:54 0·3	9:15 6·9	21:57 6·4	3:16 1·3	9:51 6·8	22:26 6·6	29	W.	9:51 6·8	22:26 6·6	4:04 1·1	16:35 0·3	4:04 1·1	4:04 1·1	4:04 1·1	4:04 1·1
29	M.	10:06 6·7	22:49 6·3	4:14 1·4	16:49 0·5	10:06 6·7	22:49 6·3	4:14 1·4	10:44 6·5	23:18 6·5	30	Th.	10:44 6·5	23:18 6·5	5:02 1·3	17:31 0·6	5:02 1·3	5:02 1·3	5:02 1·3	5:02 1·3
30	Tu.	10:58 6·4	23:42 6·2	5:18 1·6	17:48 0·7	10:58 6·4	23:42 6·2	5:18 1·6	11:37 6·2	.....	31	F.	0:11 6·3	12:31 5·8	7:12 1·6	19:28 1·3	7:12 1·6	7:12 1·6	7:12 1·6	7:12 1·6

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

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Date,	Day.	JANUARY.								FEBRUARY.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	H. M.	FT.	Time.	H't.	H. M.	FT.	Time.	H't.	H. M.	FT.	Time.	H't.	H. M.	FT.		
1	Th.	7:04	23·7	19:34	22·6	0:37	4·0	13:12	3·4	1	8·46	25·1	21:18	24·0	2:33	3·6	15:08	2·3	
2	F.	8:05	24·7	20:38	23·7	1:41	3·8	14:16	2·8	2	9·42	26·0	22:13	24·8	3:36	2·8	16:07	1·5	
3	Sa.	9:04	26·0	21:36	24·7	2:46	3·2	15:21	1·8	3	10:35	26·5	23:05	25·3	4:34	2·0	17:01	1·0	
4	So.	10:01	26·8	22:30	25·3	3:51	2·5	16:24	1·2	4	11:27	26·7	23:56	25·6	5:27	1·5	17:54	0·7	
5	M.	10:54	27·3	23:23	25·7	4:53	1·8	17:21	0·6	5	.....	.....	12:18	26·6	6:18	1·2	18:45	0·7	
6	Tu.	11:46	27·6	.....	.....	5:48	1·5	18:14	0·3	6	F.	0:47	25·8	13:08	26·3	7:06	1·2	19:34	0·9
7	W.	0:15	26·0	12:37	27·4	6:39	1·3	19:06	0·3	7	Sa.	1:37	25·7	13:57	25·8	7:53	1·4	20:21	1·5
8	Th.	1:06	26·1	13:28	27·1	7:29	1·2	19:57	0·5	8	So.	2:24	25·3	14:45	25·0	8:39	2·0	21:06	2·4
9	F.	1:58	25·8	14:18	26·4	8:19	1·4	20:47	1·1	9	M.	3:10	24·7	15:32	23·8	9:25	2·8	21:50	3·5
10	Sa.	2:50	25·3	15:09	25·3	9:09	2·0	21:36	2·0	10	Tu.	3:57	23·8	16:20	22·6	10:12	3·9	22:35	4·8
11	So.	3:43	24·6	16:03	24·0	10:00	3·0	22:24	3·3	11	W.	4:46	22·9	17:11	21·4	11:02	4·9	23:22	5·8
12	M.	4:36	23·7	17:00	22·8	10:52	4·0	23:14	4·5	12	Th.	5:39	22·0	18:08	20·6	11:55	5·6	.....	.....
13	Tu.	5:30	22·9	17:59	21·7	11:45	5·0	.....	.....	13	F.	6:34	21·6	19:10	20·4	0:16	6·4	12:52	5·9
14	W.	6:26	22·3	18:59	21·2	0:08	5·5	12:40	5·6	14	Sa.	7:30	21·8	20:08	20·8	1:16	6·6	13:52	5·6
15	Th.	7:21	22·2	19:57	21·1	1:05	6·1	13:36	5·6	15	So.	8:24	22·2	20:59	21·4	2:15	6·2	14:45	5·1
16	F.	8:14	22·6	20:48	21·4	2:03	6·2	14:33	5·3	16	M.	9:14	22·9	21:43	22·1	3:07	5·6	15:32	4·4
17	Sa.	9:04	23·0	21:34	21·8	2:59	5·9	15:24	4·8	17	Tu.	9:58	23·6	22:25	22·8	3:53	4·8	16:16	3·8
18	So.	9:49	23·4	22:16	22·1	3:47	5·6	16:10	4·4	18	W.	10:40	24·0	23:06	23·4	4:37	4·2	16:59	3·3
19	M.	10:30	23·8	22:56	22·5	4:29	5·2	16:51	4·0	19	Th.	11:21	24·4	23:46	23·8	5:19	3·6	17:41	2·8
20	Tu.	11:10	24·0	23:36	22·8	5:10	4·8	17:31	3·6	20	F.	.....	.....	12:01	24·6	5:59	3·0	18:21	2·5
21	W.	11:49	24·1	.....	.....	5:50	4·4	18:10	3·3	21	Sa.	0:25	24·3	12:40	24·9	6:38	2·5	19:00	2·2
22	Th.	0:15	23·1	12:27	24·3	6:29	4·0	18:48	3·0	22	So.	1:05	24·9	13:20	25·1	7:18	2·1	19:40	2·2
23	F.	0:53	23·5	13:06	24·5	7:07	3·5	19:26	2·7	23	M.	1:46	25·2	14:02	25·0	8:01	1·8	20:22	2·3
24	Sa.	1:30	23·9	13:46	24·6	7:45	3·1	20:05	2·6	24	Tu.	2:29	25·4	14:47	24·6	8:46	1·8	21:07	2·6
25	So.	2:09	24·3	14:28	24·5	8:24	2·9	20:46	2·6	25	W.	3:14	25·1	15:37	23·8	9:34	2·3	21:57	3·4
26	M.	2:49	24·4	15:12	24·1	9:07	2·8	21:30	3·0	26	Th.	4:05	24·4	16:35	22·9	10:27	3·0	22:53	4·1
27	Tu.	3:32	24·2	15:59	23·4	9:55	3·0	22:18	3·5	27	F.	5:06	23·7	17:42	22·2	11:26	3·6	23:56	4·6
28	W.	4:24	23·7	16:56	22·6	10:48	3·4	23:12	4·1	28	Sa.	6:16	23·4	18:54	22·1	.....	.....	12:32	3·9
29	Th.	5:27	23·5	18:02	22·2	11:48	3·7	.....	.....	29	So.	7:27	23·7	20:02	22·8	1:06	4·6	13:44	3·6
30	F.	6:37	23·7	19:12	22·4	0:14	4·4	12:54	3·7										
31	Sa.	7:44	24·3	20:18	23·1	1:24	4·2	14:02	3·2										

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at the lower of the two Spring tides in the month, when the moon is at perigee at one of the springs. This is also the Low-water Datum for St. John harbour.

TIDAL DIFFERENCES and other information for the Bay of Fundy are given on pages 12, 65 and 67.

Date.	Day.	MARCH.								APRIL.							
		HIGH WATER.		LOW WATER.		Date.	Day.	HIGH WATER.		LOW WATER.							
		Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.						
		H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.			H. M. FT.	H. M. FT.	H. M. FT.	H. M. FT.						
1	M.	8:30	24·4	21:03	23·6	2:19	4·0	14:50	2·9	10:13	25·0	22:36	25·1	4:06	2·6	16:30	2·4
2	Tu.	9:27	25·1	21:58	24·5	3:24	3·1	15:51	2·0	10:59	25·1	23:19	25·4	4:55	2·1	17:17	2·4
3	W.	10:21	25·6	22:48	25·1	4:21	2·2	16:46	1·5	11:42	25·0	.....	.....	5:41	2·0	18:00	2·7
4	Th.	11:12	25·9	23:36	25·5	5:12	1·6	17:37	1·4	0:01	25·3	12:24	24·5	6:24	2·2	18:41	3·2
5	F.	.....	12:01	25·8	6:00	1·4	18:24	1·5	0:42	25·1	13:05	24·1	7:06	2·6	19:21	3·8	
6	Sa.	0:22	25·6	12:47	25·4	6:46	1·5	19:08	1·9	1:22	24·9	13:45	23·7	7:46	3·0	20:00	4·3
7	Su.	1:07	25·4	13:30	25·0	7:30	1·8	19:51	2·5	2:01	24·5	14:24	23·1	8:24	3·5	20:38	4·8
8	M.	1:51	25·2	14:12	24·3	8:13	2·4	20:33	3·1	2:39	24·1	15:04	22·7	9:01	4·0	21:17	5·4
9	Tu.	2:34	24·7	14:55	23·5	8:55	3·0	21:14	4·1	3:21	23·4	15:48	21·9	9:39	4·5	22:01	5·9
10	W.	3:18	23·9	15:39	22·5	9:36	3·9	21:57	5·1	4:11	22·7	16:41	21·3	10:24	5·0	22:53	6·3
11	Th.	4:04	23·0	16:27	21·6	10:18	4·7	22:43	5·9	5:08	22·0	17:45	20·9	11:18	5·4	23:50	6·5
12	F.	4:54	22·2	17:24	20·8	11:04	5·4	23:35	6·5	6:11	21·6	18:43	21·1	....	....	12:17	5·5
13	Sa.	5:51	21·6	18:27	20·4	....	....	12:01	5·8	7:08	22·0	19:37	21·9	0:48	6·2	13:15	5·2
14	Su.	6:53	21·4	19:26	20·7	0:34	6·7	13:04	5·7	8:02	22·7	20:28	22·9	1:45	5·5	14:11	4·6
15	M.	7:49	22·0	20:19	21·5	1:32	6·3	14:04	5·2	8:52	23·5	21:16	24·0	2:40	4·4	15:04	3·8
16	Tu.	8:38	22·7	21:06	22·4	2:26	5·5	14:56	4·4	9:38	24·3	22:01	25·0	3:30	3·4	15:51	3·1
17	W.	9:24	23·5	21:50	23·4	3:17	4·5	15:43	3·7	10:23	24·9	22:45	25·9	4:17	2·4	16:36	2·6
18	Th.	10:08	24·2	22:33	24·2	4:06	3·6	16:28	3·1	11:07	25·5	23:28	26·6	5:03	1·6	17:20	2·2
19	F.	10:51	24·7	23:14	24·8	4:50	2·9	17:10	2·6	11:52	25·9	....	....	5:48	1·1	18:04	2·0
20	Sa.	11:33	25·0	23:54	25·4	5:32	2·2	17:51	2·3	12:04	26·0	12:38	26·0	6:33	0·8	18:51	1·9
21	Su.	.....	12:15	25·2	6:13	1·6	18:32	2·0	12:56	26·3	13:26	26·0	7:19	0·7	19:40	2·1	
22	M.	0:36	26·0	12:58	25·6	6:55	1·3	19:14	2·0	1:45	27·2	14:14	25·5	8:09	0·9	20:31	2·5
23	Tu.	1:19	26·4	13:42	25·6	7:39	1·1	19:58	2·2	2:37	26·6	15:08	24·8	9:03	1·4	21:25	3·2
24	W.	2:05	26·4	14:28	25·1	8:25	1·3	20:46	2·6	3:35	25·6	16:06	23·8	10:00	2·4	22:24	4·1
25	Th.	2:55	25·9	15:20	24·2	9:15	1·8	21:39	3·4	4:36	24·3	17:12	23·0	11:00	3·4	23:29	4·8
26	F.	3:51	25·0	16:20	23·2	10:09	2·6	22:38	4·2	5:43	23·4	18:26	22·7	....	....	12:06	4·1
27	Sa.	4:53	24·0	17:30	22·4	11:09	3·5	23:43	4·8	6:56	23·1	19:36	23·1	0:40	5·0	13:16	4·3
28	Su.	6:01	23·2	18:43	22·2	....	....	12:17	4·0	8:04	23·4	20:38	23·9	1:50	4·5	14:23	4·0
29	M.	7:12	23·2	19:54	22·7	0:53	5·0	13:29	4·0	9:02	23·8	21:30	24·5	2:54	3·7	15:23	3·6
30	Tu.	8:21	23·8	20:56	23·7	2:06	4·4	14:37	3·5	9:53	24·1	22:14	24·9	3:50	3·2	16:14	3·5
31	W.	9:21	24·5	21:49	24·5	3:10	3·4	15:37	2·8								

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at the lower of the two Spring tides in the month, when the moon is at perigee at one of the springs. This is also the Low-water Datum for St. John harbour.

TIDAL DIFFERENCES and other information for the Bay of Fundy are given on pages 12, 65 and 67.

		MAY.										JUNE.							
Date	Day.	HIGH WATER.				LOW WATER.				Date	Day.	HIGH WATER.				LOW WATER.			
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.			Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.
		H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.			H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.
1	Sa.	10:36	24·1	22:55	25·0	4:39	2·9	16:58	3·6	1	Tu.	11:34	22·9	23:48	24·4	5:35	3·9	17:48	5·2
2	So.	11:17	23·9	23:34	24·9	5:21	2·9	17:38	4·0	2	W.	.....	.....	12:12	22·8	6:13	4·0	18:25	5·4
3	M.	11:57	23·6	.....	.....	6:01	3·1	18:16	4·4	3	Th.	0:25	24·3	12:49	22·9	6:50	4·0	19:01	5·4
4	Tu.	0:12	24·8	12:36	23·3	6:40	3·4	18:53	4·8	4	F.	1:03	24·4	13:27	22·9	7:26	3·9	19:38	5·3
5	W.	0:50	24·6	13:15	23·1	7:18	3·6	19:29	5·1	5	Sa.	1:42	24·3	14:06	23·0	8:03	3·8	20:17	5·2
6	Th.	1:29	24·5	13:55	23·0	7:55	3·8	20:06	5·3	6	So.	2:23	24·1	14:47	23·0	8:41	3·8	20:53	5·1
7	F.	2:09	24·2	14:37	22·9	8:33	4·0	20:45	5·4	7	M.	3:07	23·7	15:33	22·9	9:22	4·0	21:43	5·2
8	Sa.	2:51	23·7	15:21	22·4	9:13	4·1	21:28	5·6	8	Tu.	3:54	23·2	16:23	22·7	10:08	4·3	22:32	5·2
9	So.	3:36	23·2	16:08	22·0	9:56	4·5	22:15	5·9	9	W.	4:45	22·6	17:18	22·6	10:58	4·6	23:26	5·2
10	M.	4:25	22·5	17:00	21·7	10:44	4·9	23:07	6·0	10	Th.	5:42	22·2	18:16	22·9	11:52	4·7	.....	.....
11	Tu.	5:21	21·9	17:58	21·7	11:36	5·1	.....	.....	11	F.	6:42	22·3	19:12	23·6	0:23	4·8	12:48	4·6
12	W.	6:24	22·0	18:57	22·3	0:05	5·8	12:32	5·1	12	Sa.	7:38	23·0	20:05	24·7	1:21	4·1	13:45	4·1
13	Th.	7:23	22·6	19:53	23·4	1:06	5·3	13:29	4·6	13	So.	8:32	23·9	20:57	25·9	2:18	3·2	14:41	3·5
14	F.	8:17	23·4	20:43	24·6	2:03	4·3	14:24	4·0	14	M.	9:25	24·7	21:48	26·9	3:14	2·2	15:36	2·9
15	Sa.	9:08	24·2	21:30	25·7	2:55	3·2	15:15	3·3	15	Tu.	10:18	25·3	22:40	27·5	4:10	1·4	16:30	2·4
16	So.	9:56	25·0	22:16	26·6	3:45	2·2	16:04	2·7	16	W.	11:12	25·8	23:33	28·0	5:05	0·8	17:24	2·0
17	M.	10:43	25·6	23:01	27·4	4:34	1·4	16:52	2·3	17	Th.	.....	.....	12:05	26·2	5:59	0·4	18:18	1·6
18	Tu.	11:30	26·0	23:48	27·8	5:22	0·9	17:41	2·0	18	F.	0:26	28·1	12:57	26·4	6:52	0·3	19:13	1·5
19	W.	.....	.....	12:18	26·2	6:11	0·5	18:32	1·9	19	Sa.	1:18	27·9	13:49	26·2	7:44	0·2	20:08	1·6
20	Th.	0:37	28·0	13:08	26·2	7:02	0·4	19:25	1·9	20	So.	2:11	27·2	14:42	25·9	8:37	0·6	21:03	2·0
21	F.	1:29	27·9	14:00	26·0	7:54	0·6	20:20	2·2	21	M.	3:06	26·3	15:37	25·2	9:29	1·4	21:57	2·7
22	Sa.	2:24	27·0	14:56	25·4	8:47	1·0	21:16	2·7	22	Tu.	4:03	25·0	16:35	24·4	10:22	2·5	22:52	3·7
23	So.	3:22	26·0	15:56	24·4	9:42	1·8	22:14	3·5	23	W.	5:03	23·7	17:37	23·7	11:17	3·8	23:50	4·6
24	M.	4:23	24·7	17:01	23·7	10:42	3·0	23:14	4·2	24	Th.	6:06	22·7	18:44	23·3	.....	.....	12:16	4·8
25	Tu.	5:29	23·6	18:08	23·2	11:48	3·9	.....	.....	25	F.	7:12	22·2	19:43	23·3	0:52	5·1	13:20	5·4
26	W.	6:38	23·1	19:15	23·4	0:18	4·7	12:56	4·5	26	Sa.	8:12	22·1	20:34	23·6	1:57	5·1	14:21	5·6
27	Th.	7:43	22·9	20:16	23·8	1:25	4·7	14:00	4·6	27	So.	9:04	22·0	21:18	23·8	2:56	4·8	15:14	5·5
28	F.	8:41	23·1	21:08	24·6	2:30	4·3	14:57	4·6	28	M.	9:50	22·3	22:00	24·0	3:46	4·5	16:01	5·5
29	Sa.	9:32	23·6	21:51	24·5	3:27	4·0	15:47	4·6	29	Tu.	10:30	22·3	22:40	24·0	4:30	4·4	16:43	5·5
30	So.	10:15	23·2	22:31	24·6	4:14	3·8	16:30	4·8	30	W.	11:08	22·4	23:19	24·1	5:10	4·2	17:22	5·5
31	M.	10:55	23·1	23:10	24·5	4:56	3·8	17:10	5·0										

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at the lower of the two Spring tides in the month, when the moon is at perigee at one of the springs. This is also the Low-water Datum for St. John harbour.

TIDAL DIFFERENCES and other information for the Bay of Fundy are given on pages 12, 65 and 67.

Date.	Day.	JULY.								AUGUST.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
		H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.		
1	Th.	11:45	22·7	23:57	24·1	5:48	4·1	18:00	5·4	1	5·0	10:24·2	12:35	23·5	6:34	3·4	18:48	4·0	
2	F.	.....	12:22	22·8	6:25	3·9	18:37	5·2	2	5·2	0:48	24·4	13:12	23·9	7:11	3·0	19:27	3·6	
3	Sa.	0:36	24·3	13:00	23·1	7:01	3·7	19:13	4·8	3	5·3	1:27	24·6	13:50	24·3	7:48	2·8	20:07	3·2
4	So.	1:16	24·4	13:39	23·4	7:38	3·4	19:50	4·4	4	5·4	2:07	24·6	14:29	24·5	8:26	2·9	20:48	3·2
5	M.	1:55	24·4	14:19	23·6	8:16	3·3	20:29	4·2	5	5·5	2:48	24·2	15:11	24·4	9:07	3·2	21:32	3·3
6	Tu.	2:35	24·2	15:01	23·6	8:56	3·4	21:12	4·2	6	5·6	3:31	23·6	16:00	24·1	9:52	3·6	22:19	3·6
7	W.	3:16	23·8	15:46	23·6	9:39	3·6	21:58	4·3	7	5·7	4:22	22·8	16:57	23·7	10:42	4·2	23:14	4·0
8	Th.	4:03	23·2	16:35	23·4	10:25	4·0	22:49	4·4	8	5·8	5:25	22·2	18:02	23·6	11:39	4·6	.....	.....
9	F.	4:58	22·6	17:31	23·4	11:15	4·4	23:44	4·3	9	5·9	6:38	22·2	19:08	24·0	0:16	4·1	12:44	4·7
10	Sa.	6:00	22·3	18:33	23·8	.....	.....	12:09	4·6	10	6·0	7:47	22·7	20:12	24·9	1:27	3·8	13:54	4·2
11	So.	7:06	22·6	19:33	24·5	0:44	4·1	13:07	4·4	11	6·1	8:47	23·6	21:12	25·8	2:32	3·0	15:00	3·4
12	M.	8:05	23·3	20:29	25·5	1:48	3·5	14:09	3·9	12	6·2	9:42	24·6	22:06	26·6	3:33	2·0	16:00	2·4
13	Tu.	9:02	24·1	21:24	26·5	2:50	2·6	15:12	3·1	13	6·3	10:36	25·4	22:59	27·0	4:31	1·1	16:55	1·6
14	W.	9:58	24·9	22:18	27·3	3:48	1·6	16:12	2·4	14	6·4	11:29	26·0	23:51	27·2	5:27	0·6	17:49	1·2
15	Th.	10:53	25·6	23:13	27·7	4:45	1·0	17:10	1·7	15	6·5	.....	12:20	26·4	6:21	0·4	18:42	0·9	
16	F.	11:47	26·1	.....	.....	5:41	0·4	18:06	1·4	16	6·6	0:42	27·1	13:09	26·5	7:12	0·5	19:33	1·0
17	Sa.	0:09	27·8	12:39	26·4	6:36	0·2	19:00	1·1	17	6·7	1:32	26·8	13:57	26·3	8:00	1·0	20:22	1·4
18	So.	1:04	27·7	13:30	26·5	7:29	0·2	19:52	1·0	18	6·8	2:21	25·8	14:46	25·7	8:45	1·9	21:09	2·2
19	M.	1:57	27·2	14:22	26·3	8:19	0·5	20:42	1·4	19	6·9	3:10	24·7	15:36	24·8	9:29	2·9	21:55	3·3
20	Tu.	2:48	26·4	15:15	25·6	9:08	1·3	21:31	2·2	20	7·0	4:00	23·4	16:27	23·8	10:15	4·2	22:42	4·5
21	W.	3:38	25·0	16:09	24·8	9:58	2·5	22:21	3·4	21	7·1	4:53	22·1	17:21	22·8	11:06	5·5	23:32	5·5
22	Th.	4:31	23·6	17:05	23·8	10:50	3·9	23:16	4·5	22	7·2	5:51	21·0	18:19	22·1	.....	....	12:00	6·4
23	F.	5:30	22·4	18:04	22·9	11:46	5·2	.....	....	23	7·3	6:54	20·6	19:18	21·9	0:29	6·0	12:58	6·9
24	Sa.	6:38	21·4	19:06	22·6	0:16	5·3	12:45	6·0	24	7·4	7:56	20·7	20:14	22·2	1:33	6·0	13:58	6·6
25	So.	7:39	21·1	20:03	22·7	1:18	5·7	13:46	6·3	25	7·5	8:49	21·2	21:02	22·9	2:32	5·6	14:53	6·0
26	M.	8:32	21·3	20:52	23·0	2:18	5·6	14:44	6·2	26	7·6	9:33	21·9	21:44	23·4	3:23	4·9	15:38	5·3
27	Tu.	9:21	21·6	21:36	23·3	3:11	5·2	15:34	5·9	27	7·7	10:14	22·6	22:25	23·8	4:08	4·2	16:20	4·7
28	W.	10:04	22·0	22:16	23·7	3:56	4·7	16:16	5·6	28	7·8	10:53	23·2	23:05	24·2	4:48	3·7	17:01	4·1
29	Th.	10:43	22·3	22:55	23·9	4:37	4·2	16:55	5·2	29	7·9	11:30	23·7	23:44	24·5	5:27	3·3	17:41	3·6
30	F.	11:21	22·7	23:33	24·1	5:17	3·9	17:33	4·8	30	8·0	.....	.....	12:06	24·2	6:05	3·0	18:20	3·1
31	Sa.	11:58	23·1	.....	.....	5:56	3·7	18:10	4·4	31	8·1	0:24	24·8	12:43	24·7	6:42	2·8	19:00	2·7

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at the lower of the two Spring tides in the month, when the moon is at perigee at one of the springs. This is also the Low-water Datum for St. John harbour.

TIDAL DIFFERENCES and other information for the Bay of Fundy, are given on pages 12, 65 and 67.

## TIDE TABLES.—ST. JOHN, N.B.—1920.

Date.	Day.	SEPTEMBER.								Date.	Day.	OCTOBER.									
		HIGH WATER.				LOW WATER.						HIGH WATER.				LOW WATER.					
		Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.			Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.	Time. H't.	H. M. FT.		
1	W.	1:04 24·9	13:22 25·1	7:20 2·6	19:41 2·4	1	F.	1:19 25·3	13:37 26·2	7:37 2·6	20:04 1·7										
2	Th.	1:45 25·0	14:04 25·4	8:00 2·7	20:23 2·3	2	Sa.	2:05 25·0	14:24 26·1	8:22 2·8	20:51 2·0										
3	F.	2:27 24·6	14:49 25·3	8:43 2·9	21:08 2·5	3	Su.	2:54 24·2	15:16 25·4	9:11 3·3	21:41 2·6										
4	Sa.	3:11 24·0	15:38 24·9	9:30 3·4	21:59 3·0	4	M.	3:48 23·6	16:14 24·2	10:06 4·0	22:36 3·4										
5	Su.	4:02 23·1	16:33 24·1	10:21 4·1	22:54 3·7	5	Tu.	4:50 22·7	17:19 23·7	11:06 4·6	23:39 4·0										
6	M.	5:05 22·2	17:39 23·6	11:17 4·7	23:56 4·1	6	W.	6:00 22·2	18:30 23·4	.....	12:12 4·8										
7	Tu.	6:16 22·0	18:48 23·7	.....	12:23 4·9	7	Th.	7:11 22·6	19:40 23·7	0:51 4·0	13:21 4·6										
8	W.	7:25 22·5	19:57 24·2	1:05 4·0	13:36 4·4	8	F.	8:16 23·4	20:43 24·4	2:01 3·6	14:28 3·7										
9	Th.	8:30 23·4	20:58 25·1	2:16 3·4	14:46 3·4	9	Sa.	9:14 24·5	21:39 25·1	3:05 3·0	15:30 2·7										
10	F.	9:28 24·5	21:54 25·8	3:19 2·4	15:48 2·5	10	Su.	10:07 25·4	22:30 25·5	4:01 2·4	16:26 2·0										
11	Sa.	10:21 25·4	22:45 26·3	4:15 1·6	16:44 1·7	11	M.	10:56 25·8	23:18 25·4	4:51 2·1	17:17 1·8										
12	Su.	11:12 26·0	23:35 26·4	5:08 1·2	17:36 1·3	12	Tu.	11:42 26·0	.....	5:37 2·3	18:03 1·8										
13	M.	.....	12:02 26·3	5:59 1·2	18:25 1·2	13	W.	0:04 25·1	12:25 25·7	6:21 2·7	18:46 2·2										
14	Tu.	0:24 26·2	12:50 26·2	6:47 1·4	19:10 1·4	14	Th.	0:48 24·7	13:06 25·4	7:04 3·3	19:23 2·6										
15	W.	1:11 25·8	13:35 26·0	7:31 2·0	19:54 1·9	15	F.	1:31 24·1	13:46 25·0	7:46 3·9	20:09 3·2										
16	Th.	1:57 25·1	14:19 25·5	8:14 2·8	20:37 2·6	16	Sa.	2:13 23·5	14:26 24·5	8:27 4·5	20:49 3·8										
17	F.	2:42 24·2	15:03 24·8	8:57 3·7	21:21 3·5	17	Su.	2:54 22·9	15:07 23·7	9:07 5·1	21:30 4·4										
18	Sa.	3:27 23·1	15:48 23·7	9:41 4·7	22:06 4·5	18	M.	3:36 22·2	15:52 22·9	9:49 5·8	22:15 5·0										
19	Su.	4:14 22·0	16:38 22·7	10:27 5·8	22:54 5·4	19	Tu.	4:24 21·5	16:46 22·2	10:36 6·2	23:07 5·5										
20	M.	5:06 21·0	17:35 21·9	11:16 6·5	23:48 6·0	20	W.	5:20 21·0	17:48 21·7	11:30 6·5	.....										
21	Tu.	6:07 20·6	18:36 21·6	.....	12:14 7·0	21	Th.	6:22 20·9	18:49 21·8	0:05 5·7	12:29 6·4										
22	W.	7:13 20·6	19:32 21·8	0:46 6·0	13:18 6·8	22	F.	7:21 21·6	19:44 22·2	1:02 5·5	13:30 5·8										
23	Th.	8:08 21·3	20:23 22·4	1:43 5·7	14:11 6·0	23	Sa.	8:15 22·6	20:35 23·0	1:55 5·0	14:26 5·0										
24	F.	8:55 22·1	21:11 23·2	2:36 5·0	15:00 5·1	24	Su.	9:01 23·8	21:22 23·8	2:45 4·8	15:15 3·9										
25	Sa.	9:39 23·0	21:56 23·9	3:25 4·2	15:45 4·2	25	M.	9:44 24·6	22:06 24·4	3:32 3·6	16:00 3·0										
26	Su.	10:20 23·8	22:38 24·4	4:11 3·6	16:28 3·5	26	Tu.	10:26 25·4	22:49 24·9	4:17 3·2	16:43 2·4										
27	M.	11:00 24·6	23:18 24·8	4:54 3·2	17:10 2·9	27	W.	11:08 26·0	23:31 25·2	5:01 2·8	17:25 1·8										
28	Tu.	11:39 25·1	23:57 25·0	5:35 2·9	17:52 2·4	28	Th.	11:50 26·5	.....	5:45 2·5	18:09 1·4										
29	W.	.....	12:17 25·6	6:15 2·6	18:35 2·0	29	F.	0:14 25·4	12:33 27·0	6:30 2·4	18:55 1·2										
30	Th.	0:37 25·2	12:56 26·0	6:55 2·5	19:19 1·7	30	Sa.	1:00 25·5	13:18 27·0	7:16 2·4	19:43 1·2										
						31	Su.	1:50 25·4	14:08 26·6	8:05 2·6	20:34 1·5										

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at the lower of the two Spring tides in the month, when the moon is at perigee at one of the springs. This is also the Low-water Datum for St. John harbour.

TIDAL DIFFERENCES and other information for the Bay of Fundy, are given on pages 12, 65 and 67.

Date.	Day.	NOVEMBER.								DECEMBER.									
		HIGH WATER.				LOW WATER.				HIGH WATER.				LOW WATER.					
		Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.	Time.	H't.		
1	M.	H. M.	FT.	H. M.	FT.	H. M.	FT.	H. M.	FT.	3:26	24·9	15:47	25·4	9:42	2·7	22:08	2·2		
2	Tu.	2:43	25·0	15:02	26·0	8:57	3·0	21:28	2·1	4:25	24·1	16:50	24·1	10:40	3·5	23:08	3·3		
3	W.	3:39	24·2	16:01	25·0	9:52	3·6	22:25	3·0	5:29	23·4	17:58	23·2	11:41	4·1	.....	....		
4	Th.	4:40	23·4	17:05	23·9	10:52	4·3	23:26	3·8	6:36	23·3	19:07	22·9	0:15	4·0	12:46	4·3		
5	F.	5:48	22·8	18:16	23·2	11:58	4·7	.....	....	7:42	23·7	20:10	23·0	1:24	4·4	13:56	4·2		
6	Sa.	7:00	22·9	19:25	23·3	0:33	4·1	13:09	4·5	8:41	24·1	21:06	23·2	2:28	4·4	15:00	3·8		
7	Su.	8:04	23·6	20:26	23·8	1:45	4·0	14:18	3·9	9:30	24·4	21:54	23·4	3:24	4·3	15:54	3·5		
8	M.	9:46	25·1	22:12	24·4	3:46	3·3	16:10	2·7	10:12	24·6	22:38	23·2	4:12	4·3	16:38	3·5		
9	Tu.	10:30	25·4	22:58	24·3	4:34	3·3	16:57	2·6	10:52	24·6	23:20	23·0	4:56	4·5	17:19	3·6		
10	W.	11:12	25·3	23:42	24·0	5:18	3·6	17:41	2·8	11:31	24·3	.....	....	5:38	4·8	17:59	3·7		
11	Th.	11:53	25·0	.....	....	6:00	4·0	18:23	3·1	12:00	22·8	12:09	24·1	6:18	5·0	18:38	3·8		
12	F.	0:24	23·6	12:33	24·8	6:40	4·4	19:04	3·4	12:37	22·7	12:47	24·1	6:56	5·1	19:16	3·9		
13	Sa.	1:05	23·3	13:13	24·5	7:19	4·8	19:44	3·7	13:13	22·8	13:26	24·1	7:33	5·0	19:53	3·8		
14	Su.	1:45	23·0	13:54	24·2	7:57	5·0	20:23	4·0	14:51	22·9	14:06	24·0	8:10	4·9	20:31	3·8		
15	M.	2:26	22·8	14:36	23·9	8:36	5·3	21:03	4·2	15:23	22·9	14:48	23·6	8:48	4·8	21:10	3·8		
16	Tu.	3:08	22·5	15:21	23·3	9:18	5·5	21:45	4·4	16:00	22·8	15:33	23·2	9:28	4·8	21:51	4·0		
17	W.	3:53	22·1	16:09	22·7	10:04	5·6	22:30	4·8	17:45	22·6	16:21	22·6	10:12	4·9	22:36	4·4		
18	Th.	4:42	21·8	17:01	22·1	10:53	5·8	23:18	5·1	18:52	22·4	17:16	22·1	11:02	5·0	23:27	4·7		
19	F.	5:38	21·6	18:00	21·8	11:46	5·8	.....	....	19:20	22·4	18:16	22·0	11:59	4·8	.....	....		
20	Sa.	6:39	21·9	19:02	22·1	0:12	5·2	12:41	5·4	20:28	22·9	19:14	22·3	0:22	4·8	12:58	4·4		
21	Su.	7:35	22·8	19:57	22·8	1:08	5·0	13:38	4·7	21:35	23·8	20:09	23·0	1:18	4·5	13:54	3·7		
22	M.	8:24	23·8	20:46	23·5	2:03	4·4	14:31	3·8	22:02	24·8	21:02	23·8	2:13	4·0	14:48	2·8		
23	Tu.	9:10	24·9	21:33	24·2	2:55	3·8	15:21	2·8	22:38	25·9	21:54	24·5	3:08	3·3	15:41	2·0		
24	W.	9:55	25·8	22:19	24·9	3:44	3·2	16:10	2·0	23:15	26·8	22:45	25·2	4:04	2·6	16:34	1·2		
25	Th.	10:40	26·5	23:06	25·3	4:32	2·8	16:58	1·4	23:52	27·3	23:36	25·6	5:00	2·1	17:28	0·7		
26	F.	11:26	27·0	23:54	25·6	5:19	2·4	17:47	1·0	24:29	27·6	.....	....	5:54	1·6	18:21	0·4		
27	Sa.	.....	12:14	27·4	6:08	2·2	18:37	0·8	25:06	28·0	12:50	27·7	6:47	1·3	19:13	0·2			
28	Su.	0:44	25·8	13:04	27·6	6:59	2·0	19:28	0·7	25:43	26·2	13:41	27·4	7:39	1·1	20:04	0·2		
29	M.	1:36	25·8	13:56	27·2	7:52	2·0	20:20	0·9	26:30	26·0	14:33	26·7	8:30	1·2	20:56	0·7		
30	Tu.	2:30	25·4	14:50	26·4	8:46	2·2	21:13	1·4	27:17	25·5	15:28	25·6	9:22	1·6	21:50	1·6		
										27	F.	4:03	24·8	16:27	24·4	10:17	2·6	22:46	2·8

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot. It is measured from the level of Low Water at the lower of the two Spring tides in the month, when the moon is at perigee at one of the springs. This is also the Low-water Datum for St. John harbour.

TIDAL DIFFERENCES and other information for the Bay of Fundy, are given on pages 12, 65 and 67.

## TIDE TABLES.—YARMOUTH, N. S.—1920.

## JANUARY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.		HIGH WATER.		LOW WATER.		Moon.			
		Morn'g.	After'n.	Morn'g.	After'n.			Morn'g.	After'n.	Morn'g.	After'n.				
1	Th.	5	57	18	27			1	39	20	11	1	18	13	53
2	F.	6	58	19	31			2	35	21	06	2	21	14	52
3	Sa.	7	57	20	29			3	28	21	58	3	19	15	46
4	S.	8	54	21	23			4	20	22	49	4	12	16	39
5	M.	9	47	22	16			5	11	23	40	5	03	17	30
6	Tu.	10	39	23	08			6		12	01	5	51	18	19
7	W.	11	30	23	59			7	17	13	38	7	24	19	51
8	Th.	...	12	21	6	14		8	03	14	25	8	10	20	35
9	F.	0	51	13	11	7	04	9	32						
10	Sa.	1	43	14	02	7	54	20	21	8	57	21	20		
11	S.	2	36	14	56	8	45	21	09	9	47	22	07		
12	M.	3	29	15	53	9	37	21	59	10	40	25	01		
13	Tu.	4	23	16	52	10	30	22	53	11	37				
14	W.	5	19	17	52	11	25	23	50	12					
15	Th.	6	14	18	50			13	21	12					
16	F.	7	07	19	41	0	48	13	18	14					
17	Sa.	7	57	20	27	1	44	14	09	15					
18	S.	8	42	21	09	2	32	14	55	16					
19	M.	9	23	21	49	3	14	15	36	17					
20	Tu.	10	03	22	29	3	55	16	16	18					
21	W.	10	42	23	08	4	35	16	55	19					
22	Th.	11	20	23	46	5	14	17	33	20					
23	F.	11	59			5	52	18	11	21					
24	Sa.	0	23	12	39	6	30	18	50	22					
25	S.	1	02	13	21	7	09	19	31	23					
26	M.	1	42	14	05	7	52	20	15	25					
27	Tu.	2	25	14	52	8	40	21	03	28					
28	W.	3	17	15	49	9	33	21	57	29					
29	Th.	4	20	16	55	10	33	22	59	30					
30	F.	5	30	18	05	11	39			31					
31	Sa.	6	37	19	11	0	09	12	47	32					

## MARCH.

Date.	Day.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.
		M.		Tu.		Sa.		Th.		F.		Sa.	
1	M.	7	23	19	56	1	04	13	35	2	51	15	15
2	Tu.	8	20	20	51	2	09	14	36	3	40	16	02
3	W.	9	14	21	41	3	06	15	31	4	26	16	45
4	Th.	10	05	22	29	3	57	16	22	5	09	17	26
5	F.	10	54	23	15	4	45	17	09	5	51	18	06
6	Sa.	11	40			5	31	17	53	6	31	18	45
7	S.	0	00	12	23	6	15	18	36	7	09	19	23
8	M.	0	44	13	05	6	58	19	18	8	46	20	02
9	Tu.	1	27	13	48	7	40	19	59	9	00	21	33
10	W.	2	11	14	32	8	21	20	42	10	34	22	35
11	Th.	2	57	15	20	9	03	21	28	11	04	22	33
12	F.	3	47	16	17	9	49	22	20	12	36	11	02
13	Sa.	4	44	17	20	10	46	23	19	13	30	12	00
14	S.	5	46	18	19	11	49			6	55	12	56
15	M.	6	42	19	12	0	17	12	49	7	45	13	49
16	Tu.	7	31	19	59	1	11	13	41	8	31	14	36
17	W.	8	17	20	43	2	02	14	28	9	16	15	21
18	Th.	9	01	21	26	2	51	15	13	10	00	16	05
19	F.	9	44	22	07	3	35	15	55	11	31	17	36
20	Sa.	10	26	22	47	4	17	16	36	12	18	6	04
21	S.	11	08	23	29	4	58	17	17	13	07	6	54
22	M.	11	51			5	40	17	59	14	01	7	48
23	Tu.	0	12	12	35	6	14	18	43	24	28	8	45
24	W.	0	58	13	21	7	10	19	31	25	29	9	45
25	Th.	1	48	14	13	8	00	20	24	26	36	10	51
26	F.	2	44	15	13	8	54	21	23	27	49	11	01
27	Sa.	3	46	16	23	9	54	22	28	28	57	12	08
28	S.	4	54	17	36	11	02	23	38	29	65	13	08
29	M.	6	05	18	47			12	14	30	23	1	39
30	Tu.	7	14	19	49	0	51	13	22	31	03	14	08
31	W.	8	14	20	42	1	53	14	22	32	35	14	59

## APRIL.

Date.	Day.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.
		Th.		F.		Sa.		Th.		F.		Sa.	
1		9	06	21	29	2	51	15	15				
2		9	52	22	12	3	40	16	02				
3		10	35	22	54	4	26	16	45				
4		11	17	23	35	5	09	17	26				
5		11	58			5	51	18	06				
6		0	15	12	38	6	31	18	45				
7		0	54	13	17	7	09	19	23				
8		1	32	13	57	7	46	20	02				
9		2	14	14	41	8	24	20	46				
10		3	04	15	34	9	09	21	33				
11		4	01	16	38	10	03	22	35				
12		5	04	17	36	11	02	23	33				
13		6	01	18	30			12	00				
14		6	55	19	21	1	25	13	49				
15		7	45	20	09	2	15	14	36				
16		8	31	20	54	2	02	15	21				
17		9	16	21	38	3	02	15	21				
18		10	00	22	21	3	48	16	05				
19		10	45	23	04	4	33	16	49				
20		11	31	23	49	5	18	17	36				
21				12	18	6	04	18	25				
22		0	38	13	07	6	54	19	16				
23		1	30	14	01	7	48	20	10				
24		2	28	14	59	8	45	21	09				
25		3	29	16	05	9	45	22	14				
26		4	36	17	19	10	51	23	25				
27		5	49	18	29			12	01				
28		6	57	19	31	0	35	13	08				
29		7	55	20	23	1	39	14	08				
30		8	46	21	07	2	35	14	59				

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT of High Water at Yarmouth, above the level of Low Water at ordinary Spring tides, is found by multiplying the height at St. John by 0.55; that is, it is a little more than half the height given for High Water in the St. John tide tables.

## MAY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Sa.	9 29	21 48	3 24	15 43	
2	Su.	10 10	22 27	4 06	16 23	○
3	M.	10 50	23 05	4 46	17 01	
4	Tu.	11 29	25 43	5 25	17 38	
5	W.	12 08	6 03	18 14		
6	Th.	0 22	12 48	6 40	18 51	
7	F.	1 02	13 30	7 18	19 30	
8	Sa.	1 44	14 14	7 58	20 13	
9	Su.	2 29	15 01	8 41	21 00	
10	M.	3 18	15 53	9 29	21 52	
11	Tu.	4 14	16 51	10 21	22 50	●
12	W.	5 17	17 50	11 17	23 51	
13	Th.	6 16	18 46	... 12	14	
14	F.	7 10	19 36	0 48	13 09	
15	Sa.	8 01	20 23	1 49	14 00	
16	Su.	8 49	21 09	2 30	14 49	
17	M.	9 36	21 54	3 19	15 37	
18	Tu.	10 23	22 41	4 07	16 26	●
19	W.	11 11	23 30	4 56	17 17	
20	Th.	12 01	5 47	18 10		
21	F.	0 22	12 53	6 39	19 05	
22	Sa.	1 17	13 49	7 32	20 01	
23	Su.	2 15	14 49	8 27	20 59	●
24	M.	3 16	15 54	9 27	21 59	
25	Tu.	4 22	17 01	10 33	23 03	
26	W.	5 31	18 08	11 41	... 1	
27	Th.	6 36	19 09	0 10	12 45	
28	F.	7 34	20 01	1 15	13 42	
29	Sa.	8 25	20 44	2 12	14 32	
30	Su.	9 08	21 24	2 59	15 15	
31	M.	9 48	22 03	3 41	15 55	

## JUNE.

Date.	Day.	HIGH WATER		LOW WATER		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Tu.	10 27	22 41	4 20	16 33	○
2	W.	11 05	23 18	4 58	17 10	
3	Th.	11 42	23 56	5 35	17 46	
4	F.	... 12	20	6 11	18 23	
5	Sa.	0 35	12 59	6 48	19 02	
6	Su.	1 16	13 40	7 26	19 43	
7	M.	2 00	14 26	8 07	20 28	
8	Tu.	2 47	15 16	8 53	21 17	●
9	W.	3 38	16 11	9 43	22 11	
10	Th.	4 35	17 09	10 37	23 08	
11	F.	5 35	18 05	11 33	... 1	
12	Sa.	6 31	18 58	0 06	12 30	
13	Su.	7 25	19 50	1 03	13 26	
14	M.	8 18	20 41	1 59	14 21	
15	Tu.	9 11	21 33	2 55	15 15	
16	W.	10 05	22 26	3 50	16 09	●
17	Th.	10 58	23 19	4 44	17 03	
18	F.	11 50	... 1	5 37	17 58	
19	Sa.	0 11	12 42	6 29	18 53	
20	Su.	1 04	13 35	7 22	19 48	
21	M.	1 59	14 30	8 14	20 42	
22	Tu.	2 56	15 28	9 07	21 37	
23	W.	3 56	16 30	10 02	22 35	●
24	Th.	4 59	17 37	11 01	23 37	
25	F.	6 05	18 36	... 1	12 05	
26	Sa.	7 05	19 27	0 42	13 06	
27	Su.	7 57	20 11	1 41	13 59	
28	M.	8 43	20 53	2 31	14 46	
29	Tu.	9 23	21 33	3 15	15 28	
30	W.	10 01	22 12	3 55	16 07	

## JULY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Th.	10 38	22 50	4 33	16 45	
2	F.	11 15	23 29	5 10	17 22	
3	Sa.	11 53	... 1	5 46	17 58	
4	Su.	0 09	12 32	6 23	18 35	
5	M.	0 48	13 12	7 01	19 14	
6	Tu.	1 28	13 54	7 41	19 57	
7	W.	2 09	14 39	8 24	20 43	
8	Th.	2 56	15 28	9 10	21 34	
9	F.	3 51	16 24	10 00	22 29	●
10	Sa.	4 53	17 26	10 54	23 29	
11	Su.	5 59	18 26	11 52	... 1	
12	M.	6 58	19 22	0 33	12 54	
13	Tu.	7 55	20 17	1 35	13 57	
14	W.	8 51	21 11	2 33	14 57	
15	Th.	9 46	22 06	3 30	15 55	●
16	F.	10 40	23 02	4 26	16 51	
17	Sa.	11 32	23 57	5 21	17 45	
18	Su.	... 12	23	6 14	18 37	
19	M.	0 50	13 15	7 04	19 27	
20	Tu.	1 41	14 08	7 53	20 16	
21	W.	2 31	15 02	8 43	21 06	
22	Th.	3 24	15 58	9 35	22 01	●
23	F.	4 23	16 57	10 31	23 01	
24	Sa.	5 31	17 59	11 30	... 1	
25	Su.	6 32	18 56	0 03	12 31	
26	M.	7 25	19 45	1 03	13 29	
27	Tu.	8 14	20 23	1 56	14 19	
28	W.	8 57	21 09	2 41	15 01	
29	Th.	9 36	21 48	3 22	15 40	
30	F.	10 14	22 26	4 02	16 18	○
31	Sa.	10 51	23 03	4 41	16 55	

## AUGUST.

Date.	Day.	HIGH WATER		LOW WATER		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Su.	11 28	23 41	5 19	17 33	
2	M.	... 12	05	5 56	18 12	
3	Tu.	0 20	12 43	6 33	18 52	
4	W.	1 00	13 22	7 11	19 33	
5	Th.	1 41	14 04	7 52	20 17	
6	F.	2 24	14 53	8 37	21 04	●
7	Sa.	3 15	15 50	9 27	21 59	
8	Su.	4 18	16 55	10 24	23 01	
9	M.	5 31	18 01	11 29	... 1	
10	Tu.	6 40	19 05	0 12	12 39	
11	W.	7 40	20 05	1 17	13 45	
12	Th.	8 35	20 59	2 18	14 45	
13	F.	9 29	21 52	3 16	15 40	●
14	Sa.	10 22	22 41	4 12	16 34	
15	Su.	11 13	23 35	5 06	17 27	
16	M.	... 12	02	5 57	18 18	
17	Tu.	0 25	12 50	6 45	19 07	
18	W.	1 14	13 39	7 30	19 54	
19	Th.	2 03	14 29	8 14	20 40	
20	F.	2 53	15 20	9 00	21 27	
21	Sa.	3 46	16 14	9 51	22 17	●
22	Su.	4 44	17 12	10 45	23 14	
23	M.	5 47	18 11	11 43	... 1	
24	Tu.	6 49	19 07	0 18	12 43	
25	W.	7 42	19 55	1 17	13 38	
26	Th.	8 26	20 37	2 08	14 23	
27	F.	9 07	21 18	2 53	15 05	
28	Sa.	9 46	21 58	3 33	15 46	
29	Su.	10 23	22 37	4 12	16 26	○
30	M.	10 59	23 17	4 50	17 05	
31	Tu.	11 36	23 57	5 27	17 45	

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT of High Water at Yarmouth, above the level of Low Water at ordinary Spring tides, is found by multiplying the height at St. John by 0.55; that is, it is a little more than half the height given for High Water in the St. John tide tables.

## TIDE TABLES.—YARMOUTH, N.S.—1920.

## SEPTEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.			
		Morn'g.	After'n.	Morn'g.	After'n.				
		H. M.	H. M.	H. M.	H. M.				
1	W.	12	15	6	05	18	26		
2	Th.	0	38	12	57	6	45	19	03
3	F.	1	20	13	42	7	28	19	53
4	Sa.	2	04	14	31	8	15	20	44
5	S.	2	55	15	26	9	06	21	39
6	M.	3	58	16	32	10	02	22	41
7	Tu.	5	09	17	41	11	08	23	50
8	W.	6	18	18	50	.....	12	21	
9	Th.	7	23	19	51	1	01	13	31
10	F.	8	21	20	47	2	04	14	33
11	Sa.	9	14	21	38	3	00	15	29
12	S.	10	05	22	28	3	53	16	21
13	M.	10	55	23	17	4	44	17	10
14	Tu.	11	43	.....	5	32	17	55	
15	W.	0	04	12	28	6	16	18	39
16	Th.	0	50	13	12	6	59	19	12
17	F.	1	35	13	56	7	42	20	06
18	Sa.	2	20	14	41	8	26	20	51
19	S.	3	07	15	31	9	12	21	39
20	M.	3	59	16	28	10	01	22	33
21	Tu.	5	00	17	29	10	59	23	31
22	W.	6	06	18	25	.....	12	03	
23	Th.	7	01	19	16	0	23	12	56
24	F.	7	48	20	04	1	21	13	45
25	Sa.	8	32	20	49	2	10	14	30
26	S.	9	13	21	31	2	56	15	13
27	M.	9	53	22	11	3	39	15	55
28	Tu.	10	32	22	50	4	20	16	37
29	W.	11	10	23	30	5	00	17	20
30	Th.	11	49	.....	5	40	18	04	

## OCTOBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.			
		Morn'g.	After'n.	Morn'g.	After'n.				
		H. M.	H. M.	H. M.	H. M.				
1	F.	0	12	12	30	6	22	18	49
2	Sa.	0	58	13	17	7	07	19	36
3	S.	1	47	14	09	7	56	20	24
4	M.	2	41	15	07	8	51	21	21
5	Tu.	3	43	16	12	9	51	22	24
6	W.	4	53	17	23	10	57	23	36
7	Th.	6	04	18	33	.....	12	06	
8	F.	7	09	19	36	0	46	13	13
9	Sa.	8	07	20	32	1	50	14	15
10	S.	9	00	21	23	2	46	15	11
11	M.	9	49	22	11	3	36	16	02
12	Tu.	10	35	22	57	4	22	16	48
13	W.	11	18	23	41	5	06	17	31
14	Th.	11	59	.....	.....	5	49	18	13
15	F.	0	24	12	39	6	31	18	54
16	Sa.	1	06	13	19	7	12	19	34
17	S.	1	47	14	00	7	52	20	15
18	M.	2	29	14	45	8	34	21	00
19	Tu.	3	17	15	39	9	21	21	52
20	W.	4	13	16	41	10	15	22	55
21	Th.	5	15	17	42	11	14	23	47
22	F.	6	14	18	37	.....	12	15	
23	Sa.	7	08	19	28	0	40	13	11
24	S.	7	54	20	15	1	30	14	00
25	M.	8	37	20	59	2	17	14	45
26	Tu.	9	19	21	42	3	02	15	28
27	W.	10	01	22	24	3	46	16	10
28	Th.	10	43	23	07	4	30	16	54
29	F.	11	26	23	53	5	15	17	40
30	Sa.	.....	.....	12	11	6	01	18	28
31	S.	0	43	13	01	6	50	19	19

## NOVEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.			
		Morn'g.	After'n.	Morn'g.	After'n.				
		H. M.	H. M.	H. M.	H. M.				
1	M.	1	36	13	55	7	42	20	13
2	Tu.	2	32	14	54	8	37	21	10
3	W.	3	33	15	58	9	37	22	11
4	Th.	4	41	17	09	10	43	23	18
5	F.	5	53	18	18	11	54	.....	
6	Sa.	6	57	19	19	0	30	13	03
7	S.	7	52	20	15	1	36	14	03
8	M.	8	39	21	05	2	31	14	55
9	Tu.	9	23	21	51	3	19	15	42
10	W.	10	05	22	35	4	03	16	26
11	Th.	10	46	23	17	4	45	17	08
12	F.	11	26	23	58	5	25	17	49
13	Sa.	.....	.....	12	06	6	04	18	29
14	S.	0	38	12	47	6	42	19	08
15	M.	1	19	13	29	7	21	19	48
16	Tu.	2	01	14	14	8	03	20	30
17	W.	2	46	15	02	8	49	21	15
18	Th.	3	35	15	54	9	38	22	03
19	F.	4	31	16	53	10	31	22	57
20	Sa.	5	32	17	55	11	26	23	53
21	S.	6	28	18	50	.....	12	23	
22	M.	7	17	19	39	0	48	13	16
23	Tu.	8	03	20	26	1	40	14	06
24	W.	8	48	21	12	2	29	14	55
25	Th.	9	33	21	59	3	17	15	43
26	F.	10	19	22	47	4	04	16	32
27	Sa.	11	07	23	37	4	53	17	22
28	S.	11	57	.....	.....	5	44	18	13
29	M.	0	29	12	49	6	37	19	05
30	Tu.	1	23	13	43	7	31	19	58

## DECEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.			
		Morn'g.	After'n.	Morn'g.	After'n.				
		H. M.	H. M.	H. M.	H. M.				
1	W.	2	19	14	40	8	27	20	53
2	Th.	3	18	15	43	9	25	21	53
3	F.	4	22	16	51	10	26	23	00
4	Sa.	5	29	18	00	11	31	.....	
5	S.	6	35	19	03	0	09	12	41
6	M.	7	34	19	59	1	13	13	45
7	Tu.	8	23	20	47	2	09	14	39
8	W.	9	05	21	31	2	57	15	23
9	Th.	9	45	22	13	3	41	16	04
10	F.	10	24	22	53	4	23	16	44
11	Sa.	11	02	23	30	5	03	17	23
12	S.	11	40	.....	.....	5	41	18	01
13	M.	0	06	12	19	6	18	18	38
14	Tu.	0	44	12	59	6	55	19	16
15	W.	1	25	13	41	7	33	19	55
16	Th.	2	09	14	26	8	13	20	36
17	F.	2	58	15	14	8	57	21	21
18	Sa.	3	50	16	09	9	47	22	22
19	S.	4	47	17	09	10	44	23	07
20	M.	5	43	18	07	11	43	.....	
21	Tu.	6	36	19	02	0	03	12	39
22	W.	7	26	19	55	0	58	13	33
23	Th.	8	17	20	47	1	53	14	26
24	F.	9	08	21	38	2	49	15	19
25	Sa.	9	59	22	29	3	45	16	13
26	S.	10	51	23	21	4	39	17	06
27	M.	11	43	.....	.....	5	32	17	58
28	Tu.	0	13	12	34	6	24	18	49
29	W.	1	06	13	26	7	15	19	41
30	Th.	2	00	14	21	8	07	20	35
31	Fr.	2	56	15	20	9	02	21	31

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

THE HEIGHT of High Water at Yarmouth, above the level of Low Water at ordinary Spring tides, is found by multiplying the height at St. John by 0.55; that is, it is a little more than half the height given for High Water in the St. John tide tables.

For the entrance, at Portage island and Horse-shoe bar.

## APRIL.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Th.	3 25	15 45	9 15	21 33	O
2	F.	4 08	16 38	10 24	22 19	
3	Sa.	4 51	17 25	11 25	22 56	
4	Su.	5 27	18 09	12 23	23 26	
5	M.	5 57	18 48	13 12	23 57	
6	Tu.	6 26	19 28	.....	14 00	
7	W.	6 56	20 10	0 29	14 49	
8	Th.	7 23	20 49	0 54	15 31	
9	F.	7 54	21 32	1 18	16 14	
10	Sa.	8 32	22 22	1 50	16 59	
11	Su.	9 22	23 18	2 46	17 50	A
12	M.	10 28	.....	4 17	18 32	
13	Tu.	0 18	11 50	5 43	19 10	
14	W.	1 13	13 04	6 57	19 43	
15	Th.	1 59	14 12	8 03	20 18	
16	F.	2 43	15 12	9 03	21 02	
17	Sa.	3 28	16 05	10 09	21 38	
18	Su.	4 11	16 56	11 09	22 18	B
19	M.	4 52	17 46	12 08	22 58	
20	Tu.	5 34	18 34	13 01	23 33	
21	W.	6 13	19 26	.....	13 57	
22	Th.	6 58	20 23	0 12	14 58	
23	F.	7 50	21 19	1 01	15 54	
24	Sa.	8 46	22 20	1 54	16 43	
25	Su.	9 50	23 22	3 01	17 29	D
26	M.	11 02	.....	4 25	18 01	
27	Tu.	0 20	12 20	5 57	18 38	
28	W.	1 12	13 28	7 15	19 16	
29	Th.	2 01	14 29	8 22	19 55	
30	F.	2 48	15 26	9 22	20 34	

## MAY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Sa.	3 31	16 19	10 25	21 19	O
2	Su.	4 10	17 12	11 28	21 58	
3	M.	4 46	17 56	12 20	22 35	
4	Tu.	5 21	18 33	13 03	23 05	
5	W.	5 50	19 09	13 45	23 36	
6	Th.	6 20	19 47	.....	14 27	
7	F.	6 53	20 22	0 09	15 03	
8	Sa.	7 27	21 01	0 37	15 39	
9	Su.	8 08	21 43	1 11	16 18	
10	M.	9 00	22 29	2 10	16 47	
11	Tu.	10 00	23 19	3 58	17 23	C
12	W.	11 10	.....	5 30	18 00	
13	Th.	0 15	12 28	6 43	18 35	
14	F.	1 07	13 38	7 47	19 14	
15	Sa.	1 58	14 42	8 50	19 55	
16	Su.	2 48	15 42	10 00	26 45	
17	M.	3 36	16 39	10 59	21 31	
18	Tu.	4 22	17 34	12 00	22 18	B
19	W.	5 10	18 28	12 58	23 02	
20	Th.	5 57	19 19	13 47	23 52	
21	F.	6 47	20 12	.....	14 37	
22	Sa.	7 41	21 08	0 49	15 29	
23	Su.	8 35	22 01	1 51	16 14	D
24	M.	9 37	22 56	3 10	16 53	
25	Tu.	10 46	23 48	4 44	17 22	
26	W.	.....	11 57	6 05	17 55	
27	Th.	0 35	13 07	7 25	18 28	
28	F.	1 20	14 15	8 36	19 03	
29	Sa.	2 04	15 16	9 37	19 40	
30	Su.	2 48	16 08	10 27	20 26	
31	M.	3 30	16 52	11 21	21 15	

## JUNE.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Tu.	4 15	17 33	12 09	21 55	O
2	W.	4 53	18 13	12 53	22 28	
3	Th.	5 27	18 49	13 23	23 02	
4	F.	6 02	19 26	14 03	23 39	
5	Sa.	6 38	20 03	.....	14 39	
6	Su.	7 11	20 37	0 16	15 06	
7	M.	7 49	21 13	1 01	15 30	
8	Tu.	8 35	21 51	2 10	15 50	
9	W.	9 31	22 32	3 28	16 19	C
10	Th.	10 38	23 18	5 01	16 51	
11	F.	11 54	.....	6 26	17 29	
12	Sa.	0 10	13 09	7 36	18 14	
13	Su.	1 08	14 23	8 43	19 05	
14	M.	2 07	15 30	9 53	20 08	
15	Tu.	3 04	16 29	10 51	21 07	
16	W.	3 59	17 25	11 50	22 05	B
17	Th.	4 54	18 20	12 45	22 57	
18	F.	5 45	19 09	13 30	23 52	
19	Sa.	6 37	19 57	.....	14 14	
20	Su.	7 30	20 46	0 52	14 57	
21	M.	8 23	21 31	1 55	15 31	
22	Tu.	9 22	22 17	3 08	16 03	
23	W.	10 26	23 03	4 34	16 29	D
24	Th.	11 33	23 48	5 55	17 02	
25	F.	12 42	7 19	17 36	.....	
26	Sa.	0 33	13 49	8 34	18 15	
27	Su.	1 19	14 46	9 33	18 59	
28	M.	2 08	15 40	10 20	19 45	
29	Tu.	2 57	16 30	11 08	20 38	
30	W.	3 42	17 14	11 45	21 26	

## JULY.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	Th.	4 25	17 53	12 24	22 14	O
2	F.	5 07	18 31	13 00	22 56	
3	Sa.	5 44	19 03	13 28	23 40	
4	Su.	6 22	19 36	.....	13 57	
5	M.	7 02	20 10	0 27	14 27	
6	Tu.	7 40	20 43	1 14	14 50	
7	W.	8 25	21 19	2 13	15 12	
8	Th.	9 16	21 57	3 29	15 32	
9	F.	10 15	22 37	4 42	16 04	C
10	Sa.	11 24	23 26	6 11	16 43	
11	Su.	.....	12 46	7 33	17 32	
12	M.	0 26	14 02	8 37	18 29	
13	Tu.	1 34	15 10	9 34	19 32	
14	W.	2 43	16 10	10 35	20 46	
15	Th.	3 46	17 10	11 33	21 54	B
16	F.	4 44	18 00	12 21	22 59	
17	Sa.	5 41	18 44	13 00	23 57	
18	Su.	6 32	19 27	.....	13 38	
19	M.	7 24	20 11	0 59	14 15	
20	Tu.	8 18	20 51	2 07	14 44	
21	W.	9 10	21 32	3 13	15 12	
22	Th.	10 06	22 13	4 23	15 44	D
23	F.	11 07	22 54	5 38	16 10	
24	Sa.	12 12	23 39	7 09	16 49	
25	Su.	.....	13 18	8 18	17 37	
26	M.	0 32	14 22	9 10	18 28	
27	Tu.	1 26	15 20	9 52	19 25	
28	W.	2 23	16 12	10 29	20 29	
29	Th.	3 18	16 55	11 12	21 20	
30	F.	4 07	17 32	11 49	22 12	O
31	Sa.	4 51	18 07	12 23	23 01	

The TIME used is Atlantic Standard, for the 60th Meridian, as in the other tide tables.

## TIDE TABLES.—MIRAMICHI BAY.—1920.

For the entrance, at Portage island and Horse-shoe bar.

## AUGUST.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	S.	5 34	18 36	12 48	23 44	
2	M.	6 12	19 04	.....	13 12	
3	Tu.	6 51	19 33	0 32	13 37	
4	W.	7 32	20 00	1 28	13 56	
5	Th.	8 13	20 33	2 27	14 16	
6	F.	9 03	21 10	3 33	14 44	
7	Sa.	10 04	21 54	4 43	15 10	▲
8	S.	11 15	22 48	6 03	15 57	
9	M.	12 34	23 58	7 14	16 59	
10	Tu.	.....	13 49	8 12	18 11	
11	W.	1 15	14 57	9 05	19 27	
12	Th.	2 31	15 57	10 01	20 50	
13	F.	3 37	16 53	10 57	22 01	●
14	Sa.	4 36	17 38	11 42	23 07	
15	S.	5 32	18 17	.....	12 17	
16	M.	6 22	18 56	0 04	12 51	
17	Tu.	7 11	19 35	1 03	13 24	
18	W.	8 00	20 08	2 04	13 49	
19	Th.	8 45	20 40	3 01	14 14	
20	F.	9 32	21 12	4 03	14 45	
21	Sa.	10 24	21 47	5 06	15 16	●
22	S.	11 27	22 34	6 20	16 06	
23	M.	12 40	23 40	7 28	17 09	
24	Tu.	.....	13 50	8 21	18 14	
25	W.	0 59	14 44	8 57	19 17	
26	Th.	1 57	15 28	9 31	20 15	
27	F.	2 58	16 03	10 12	21 18	
28	Sa.	3 50	16 44	10 44	22 14	
29	S.	4 35	17 18	11 18	23 07	○
30	M.	5 18	17 52	11 49	23 53	
31	Tu.	5 55	18 22	.....	12 13	

## SEPTEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	W.	6 31	18 54	0 41	12 38	
2	Th.	7 16	19 29	1 32	13 05	
3	F.	8 02	20 04	2 23	13 28	
4	Sa.	8 56	20 46	3 24	13 58	▲
5	S.	9 55	21 34	4 35	14 36	
6	M.	11 02	22 33	5 39	15 34	
7	Tu.	12 17	23 44	6 42	16 45	
8	W.	.....	13 32	7 37	18 09	
9	Th.	1 09	14 39	8 27	19 34	
10	F.	2 21	15 34	9 11	20 55	
11	Sa.	3 29	16 22	10 01	22 08	
12	S.	4 33	17 05	10 44	23 10	●
13	M.	5 25	17 45	11 24	.....	
14	Tu.	6 08	18 19	0 03	11 55	
15	W.	6 50	18 53	0 56	12 27	
16	Th.	7 33	19 26	1 50	18 01	
17	F.	8 13	19 54	2 38	13 30	
18	Sa.	8 57	20 24	3 27	14 00	
19	S.	9 46	21 02	4 24	14 30	
20	M.	10 43	21 51	5 19	15 27	
21	Tu.	11 52	21 53	6 18	16 42	●
22	W.	.....	12 58	7 11	17 58	
23	Th.	0 04	13 52	7 53	19 04	
24	F.	1 16	14 39	8 31	20 06	
25	Sa.	2 23	15 22	9 06	21 11	
26	S.	3 22	16 00	9 47	22 05	○
27	M.	4 11	16 36	10 22	23 01	
28	Tu.	4 57	17 12	10 55	23 55	
29	W.	5 42	17 44	11 22	.....	
30	Th.	6 24	18 18	0 43	11 52	

## OCTOBER.

Date.	Day.	H.	M.	H.	M.	H.	M.	H.	M.
		Morn'g.	After'n.	Morn'g.	After'n.	Morn'g.	After'n.	Morn'g.	After'n.
1	F.	7 08	18 55	1 34	12 25				
2	Sa.	7 59	19 35	2 30	12 55				
3	S.	8 54	20 23	3 26	13 29	▲			
4	M.	9 57	21 19	4 24	14 20				
5	Tu.	11 03	22 23	5 13	15 23				
6	W.	12 07	23 38	6 04	16 59				
7	Th.	.....	13 08	6 49	18 3				
8	F.	0 58	14 03	7 32	19 50				
9	Sa.	2 14	14 55	8 14	21 00				
10	S.	3 20	15 44	9 03	22 09	●			
11	M.	4 16	16 32	9 52	23 10				
12	Tu.	5 06	17 10	10 31	.....				
13	W.	5 52	17 42	0 08	11 03				
14	Th.	6 32	18 13	0 57	11 36				
15	F.	7 12	18 44	1 46	12 11				
16	Sa.	7 53	19 12	2 34	12 40				
17	S.	8 32	19 45	3 14	13 10				
18	M.	9 16	20 24	3 53	13 49				
19	Tu.	10 04	21 14	4 29	14 38	●			
20	W.	10 55	22 18	5 14	16 12				
21	Th.	11 52	23 33	5 58	17 39				
22	F.	.....	12 50	6 41	18 51				
23	Sa.	0 46	13 40	7 16	19 57				
24	S.	1 55	14 27	7 52	20 57				
25	M.	2 56	15 12	8 36	22 01				
26	Tu.	3 49	15 54	9 11	22 59				
27	W.	4 39	16 34	9 50	23 55	○			
28	Th.	5 28	17 14	10 29	.....				
29	F.	6 13	17 51	0 44	11 03				
30	Sa.	7 01	18 32	1 35	11 42				
31	S.	7 54	19 20	2 29	12 30				

## NOVEMBER.

Date.	Day.	H.	M.	H.	M.	H.	M.	H.	M.
		Morn'g.	After'n.	Morn'g.	After'n.	Morn'g.	After'n.	Morn'g.	After'n.
1	M.	8 47	20 13	3 16	13 19				
2	Tu.	9 42	21 15	4 01	14 18	●			
3	W.	10 40	22 23	4 47	15 39				
4	Th.	11 37	23 37	5 22	17 29				
5	F.	.....	12 32	6 02	18 51				
6	Sa.	0 51	13 27	6 43	20 03				
7	S.	1 59	14 21	7 25	21 08				
8	M.	3 03	15 10	8 06	22 14				
9	Tu.	4 02	15 52	8 54	23 19	●			
10	W.	4 57	16 31	9 36	24 07				
11	Th.	5 41	17 09	0 12	10 17				
12	F.	6 19	17 41	0 56	10 51				
13	Sa.	6 56	18 14	1 38	11 26				
14	S.	7 33	18 49	2 17	12 02				
15	M.	8 06	19 22	2 47	12 34				
16	Tu.	8 43	20 01	3 16	13 20				
17	W.	9 22	20 46	3 49	14 23	●			
18	Th.	10 03	21 41	4 52	15 47				
19	F.	10 49	22 47	4 52	17 15				
20	Sa.	11 41	.....	5 32	18 36				
21	S.	0 04	12 34	6 09	19 46				
22	M.	1 16	13 30	6 49	20 49				
23	Tu.	2 23	14 24	7 30	21 54				
24	W.	3 23	15 11	8 20	22 48				
25	Th.	4 18	15 57	9 07	23 44				
26	F.	5 11	16 44	9 54	.....				
27	Sa.	6 03	17 29	0 37	10 36				
28	S.	6 52	18 19	1 23	11 24				
29	M.	7 53	19 14	2 10	12 21				
30	Tu.	8 36	20 09	2 58	13 18				

The TIME used is Atlantic Standard, for the 60th Meridian, as in the other tide tables.

## DECEMBER.

Date.	Day.	HIGH WATER.		LOW WATER.		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.	
1	W.	9 27	21 11	3 39	14 31	
2	Th.	10 21	22 18	4 16	16 08	◎
3	F.	11 12	23 27	4 45	17 34	
4	Sa.	11 15	.....	5 18	19 01	
5	S.	0 34	12 46	5 51	20 16	
6	M.	1 40	13 35	6 28	21 15	
7	Tu.	2 41	14 24	7 09	22 09	
8	W.	3 41	15 11	7 52	23 05	
9	Th.	4 34	15 55	8 44	.....	◎
10	F.	5 23	16 37	0 00	9 32	
11	Sa.	6 02	17 18	0 44	10 19	
12	S.	6 35	17 53	1 18	10 59	
13	M.	7 08	18 29	1 51	11 41	
14	Tu.	7 42	19 07	2 23	12 27	
15	W.	8 13	19 44	2 47	13 13	
16	Th.	8 47	20 28	3 10	14 12	
17	F.	9 23	21 19	3 37	15 21	
18	Sa.	10 01	22 17	3 57	16 52	◎
19	S.	10 45	23 24	4 27	18 16	
20	M.	11 36	.....	5 03	19 31	
21	Tu.	0 38	12 30	5 41	20 38	
22	W.	1 53	13 31	6 28	21 37	
23	Th.	3 03	14 33	7 29	22 38	
24	F.	4 04	15 21	8 25	23 32	
25	Sa.	4 59	16 27	9 26	.....	○
26	S.	5 53	17 22	0 23	10 28	
27	M.	6 41	18 13	1 04	11 26	
28	Tu.	7 28	19 06	1 44	12 29	
29	W.	8 14	20 04	2 25	13 40	
30	Th.	8 56	21 01	2 58	14 52	
31	F.	9 40	22 02	3 29	16 11	

The TIME used is Atlantic Standard, for the 60th Meridian, which is four hours slower than Greenwich Mean Time. It is counted from 0 to 24 hours, from midnight to midnight.

The RISE of the tide at Portage island and the Horse-shoe bar is 4 feet at Spring tides and 2 $\frac{3}{4}$  feet at Neap tides.

It is specially to be noted regarding this region, that these values for the Rise are the usual averages. For, the two tides of the day will only be equal in height when the moon is on the equator. The Spring tides will thus have their average value when the moon is on the equator at the new or full; and the Neap tides, when the moon is on the equator at the quarters. But these positions cannot both occur in the same month.

When the moon is in high declination, north or south of the equator, the two tides of the day become very unequal. The Rise may then have the following values alternately at successive tides:—

At the Springs, 4·8 feet and 2·3 feet, alternately.

At the Neaps, 3·7 feet and 1·8 feet, alternately.

TIDAL DIFFERENCES to be applied to these Tide Tables, for Portage island in Miramichi bay. All results obtained are in Atlantic Standard time for the 60th Meridian west.

Locality.	Port of Reference.	For H. W.	For L. W.	RISE OF TIDE.	
				Sp'gs.	Neaps.
MIRAMICHI BAY:—					
Portage island; south end . . . . .	Portage island . . . . .	Add 0 00	Add 0 00	4	2 $\frac{3}{4}$
Oak Point, at head of bay . . . . .	" " . . . . .	" 0 13	" 0 26	5	3 $\frac{1}{2}$
Chatham, N.B. . . . .	" " . . . . .	" 1 05	" 1 08	5 $\frac{1}{2}$	4
Newcastle and Nelson . . . . .	" " . . . . .	" 1 18	" 1 46	4 $\frac{1}{2}$	3
Millerton, Miramichi river . . . . .	" " . . . . .	" 1 27	" 2 38	4	3
Cassilis, " " . . . . .	" " . . . . .	" 1 37	" 2 53	4	3

## MIRAMICHI BAY.—CURRENTS IN THE BAY AND RIVER.

To find the time at which the flood and ebb streams begin, apply the differences given below to the time of the tide at Portage island. The results will be in Atlantic Standard time.

*Horse-shoe channel.*

For beginning of Flood stream. Add 32 m. to Low Water.

For beginning of Ebb stream. Add 25 m. to High Water.

*Miramichi river at Chatham.*

For beginning of Flood stream. Add 2 h. 30 m. to Low Water.

For beginning of Ebb stream. Add 2 h. 05 m. to High Water.

Duration of flood, 5 h. 45 m. Duration of ebb, 6 h. 40 m.

These differences are based upon observations at the Light-ship during three months, from August to October in 1908; and in the river at Chatham for three weeks in that season.

## CURRENTS OF THE ST. LAWRENCE ESTUARY.

The relation between the turn of the current in the offing and the local tide had been ascertained during the Admiralty surveys and indicated on the charts. But the time of the tide itself at these localities was not known until observations taken in 1900 brought them into relation with Quebec, for which tide tables are published by this Survey. The Admiralty determinations have thus been reduced to the practical form given in the following table.

*The Current in the Traverse.*—This may be considered the crucial point in the St. Lawrence estuary, as the currents here attain their greatest strength. Observations of the turn of the current were obtained in 1900, from May to September. Also in the Upper Traverse, the swing of the light-ship had been noted in 1896 and 1897 from May to November; affording over 650 observations in each year, for comparison with the simultaneous record at the tidal stations.

The following features of the current are noteworthy :—

(1.) There is practically no variation from month to month in the time at which the current turns. The monthly averages are well within 5m. of the general average.

(2.) During the course of the month, the only appreciable variation from the average is in the turn after Low Water. This occurs in two ways: Firstly, a variation which ranges in the Lower Traverse from 3h. 53m. at the springs to 4h. 07m. at the neaps; the general average being 3h. 57m. Secondly, for a few days when the moon is in high declination, north or south of the equator, the turn at Low Water may occur 15m. earlier or later than the average. At High Water, this variation is scarcely appreciable.

(3.) A direct comparison between the Upper and Lower Traverse, afforded by 284 signalled observations, shows that in the Upper Traverse the flood begins 5m. to 13m. earlier and the ebb 22m. earlier, than in the Lower Traverse.

Tidal Streams in offing of Localities named. Referred to time of tide at QUEBEC.	Flood stream begins after or before L.W. H. M.	Ebb stream begins after or before H. W. H. M.	Duration of Flood. H. M.	Duration of Ebb. H. M.
Quebec harbour.....	1 10 after.	1 05 after.	4 55	7 30
St. Laurent .....	0 25 "	0 50 "	5 00	7 25
Berthier.....	0 02 "	0 18 "	5 05	7 20
Grosse Isle.....	0 19 before.	0 08 "	5 10	7 10
L'Islet.....	1 19 "	0 57 before.	5 30	6 50
Tidal Streams in offing of Localities named. Referred to time of tide at FATHER POINT.	Flood stream begins after L.W. H. M.	Ebb stream begins after H. W. H. M.	Duration of Flood. H. M.	Duration of Ebb. H. M.
In Upper Traverse.....	3 52 after.	3 13 after.	5 25	7 00
In Lower Traverse. (See complete tables).....	3 57 " -	3 35 "	5 45	6 45
Orignaux point.....	2 18 "	2 45 "	5 55	6 30
In Brandy Pot channel.....	2 04 "	1 46 "	6 05	6 20
At White island Light-ship.....	2 08 "	2 19 "	6 25	6 00
Tadoussac.....			6 08	6 15
Green island.....			6 00	6 24
Bic island .....			5 50	6 34

All results obtained by the use of the above tables, are in Eastern Standard time for the 75th Meridian.

*Current at the Site of the Quebec Bridge.*—From observations taken by the Engineers of this bridge, the maximum strength of the tidal streams are as follows:—

At Spring tides. Maximum on the Flood 5.30 knots; on the Ebb 5.55 knots.

At Neap tides. " " 3.05 " ; " 4.20 "

The duration of the flood and ebb streams is the same as at Quebec; namely, 4h. 55m. on the flood, and 7h. 30m. on the ebb.

## THE ENTRANCE TO THE ST. LAWRENCE.

### THE GASPÉ CURRENT AND THE ANTICOSTI REGION.

*The Gaspé current.*—The current in the offing of the Gaspé coast runs constantly southeastward or outward from the St. Lawrence to the Gulf. In general, it occupies a belt lying between two and fourteen miles off shore. Its greatest strength is at an offing of 4 or 5 miles, where it attains a speed of 2 knots at the springs and about  $1\frac{1}{2}$  knots at the neaps. At an offing of 10 miles it is much weaker, and beyond 14 miles any current there is, is no longer continuously downward. Between this belt and the shore, a tidal stream is found which runs westward on the flood, while on the ebb the direction is with the main current. This in-shore flood is little felt except at the springs and it does not exceed one knot at any time.

*Tidal influence.*—Although this current is constant in the sense of being always in the one direction, it is subject to a strongly marked fluctuation in speed which is in close accordance with the tide. It is thus stronger during the ebb and weaker during the flood; and every variation in the tide, such as diurnal inequality, is accurately reflected in the current. While this fluctuation is pronounced at all times, the actual velocity may be widely different owing to other causes; so much so, that it is quite possible for the maximum velocity on the ebb at one date, to be no greater than the minimum on the flood at another date.

The data given in the table following, apply to the current from the offing of Martin river to Griffin cove. It thus enables the leading features to be known where the various steamship routes make and leave this coast.

STRENGTH.		TIME.	
Flood.	Ebb.	Least Strength.	Greatest Strength.
1·10 knots.	2·35 knots.	1 h. 50 m. before High Water at Father Point.	2 h. 05 m. before Low Water at Father Point.
Greatest variation in the minimum and maximum values:—		The time obtained by applying these differences to the Father Point Tide Tables, will be in Atlantic Standard time for the 60th Meridian west.	
On the Flood, 0·67 to 1·83 knots. On the Ebb, 1·50 to 3·36 knots.			

*Variation during the month.*—The higher values usually occur at the springs and the lower at the neaps. A change in strength from perigee to apogee is also evident. The greatest velocity observed, under a combination of these influences, was 3·92 knots, at the perigee springs, in fine weather with an ordinary west wind.

*Disturbance.*—The winds are usually up and down the coast; and even when heavy, they have remarkably little effect upon this current. It frequently sets with undiminished strength, directly into a strong southeast wind, for some time after it begins to blow. The effect of winds of 20 and 30 miles an hour when in the opposite directions, up and down the coast, is found to amount only to 0·75 knot, from a careful analysis of the observations. If half this change is attributed to the wind in each direction, the increase or decrease in velocity due to such winds is three-eighths of a knot.

It is possible for the current to be displaced temporarily in position however, to the middle of the passage between the Gaspé coast and Anticosti; but the conditions producing this change are rare, and may not occur once in a season.

*The Anticosti side.*—In the middle of the passage between the Gaspé coast and Anticosti, and on the Anticosti side, the currents show as their leading characteristic, a continuous veer around the compass in the right hand direction, in the tidal period. The strength seldom exceeds one knot in any direction. The current as it veers, passes the on-shore directions more quickly, and is almost always weaker in that direction or more superficial. It will not therefore affect a steamer of ordinary draught.

Off the east end of Anticosti, the current as it veers is stronger northeastward and southwestward across the end of the island. There is also a prevalence of the southwestward set. The strength does not often exceed one knot per hour in any direction.

For full information on this region, and the routes to follow to make the best time on the inward and outward course, see "The Currents in the Entrance to the St. Lawrence," published by the Tidal Survey.

### CABOT STRAIT.—CURRENTS IN THE MAIN ENTRANCE TO THE GULF.

On the southwest side of this strait for a width of some 18 miles from Cape North, there is a constant current flowing to the southeast, or outwards from the Gulf. It is rarely checked by any conditions that occur.

*Direction, speed and width.*—The usual direction is between S.S.E. and E.S.E. Its speed is greater near Cape North, where it may be as much as two knots per hour. The width of the water flowing in the south eastward direction has been found to extend for 12 miles or more to the east of St. Paul island. This current continues to be felt along the sweep of the north eastern coast of Cape Breton island, sometimes as far as Scatari, before it mingles with the water of the Atlantic.

*Characteristics.*—For the tidal variation which this current shows, the nature of the water that it consists of, and its relation to other currents in the Gulf area, see "The Currents in the Gulf of St. Lawrence."

*Balance of flow.*—The volume of water which leaves the Gulf in this current, is largely if not wholly made up, by the inward flow on the Newfoundland side of the strait, around Cape Ray.

### BELLE ISLE STRAIT.—TIDAL STREAMS AND DOMINANT FLOW.

*General character.*—The current in Belle Isle strait is primarily tidal in its character. While under the control of the tide alone, it will turn regularly and run with equal strength in each direction; the flood setting westward and the ebb eastward. But in addition to this tidal fluctuation, the water has almost always a tendency to make through the strait in one direction more than in the other. While the tidal fluctuation goes on uninterruptedly, the water is thus making a continuous gain to the westward, or to the eastward, as the case may be. This over-balance in one direction we may term the element of *dominant flow* which is superimposed upon the usual tidal elements. It gives rise to much complication, as it is large in relation to the strength of the tidal streams, especially at the neaps when they are weak.

*Cause of the dominant flow.*—It must not be hastily assumed that the wind is the cause of the dominant flow. There is no evident relation between the direction of this flow and the local wind, to show that one is the cause of the other. The wind would produce primarily a surface drift, whereas the dominant flow affects the whole body of the water. Examples of a true wind drift have been met with in the strait; but they are rare in the summer season, as the winds are not heavy enough or sufficiently long continued to cause the surface drift to extend to any great depth. It is also to be noted that the dominant flow may continue for a week or more at a time in the one direction, which a wind drift would not do. The probable causes are fully discussed in the Report on Belle Isle strait.

*Practical indications of the direction of the dominant flow.*—The probable direction of the flow may be inferred from the general weather conditions of the region and from the presence or absence of floating icebergs in the strait. It may be taken for granted that there are always some icebergs in the offing of the strait, or eastward in the Atlantic. If a westward flow is dominant at the time, the icebergs, while drifted up and down by the tidal streams, will make their way into the strait; whereas if an eastward flow is dominant, the strait will be free from bergs which are afloat. It is to be noted that this indication is quite independent of what may be the cause of the flow.

To take advantage of this indication, the mariner must be able to distinguish, with a fair degree of certainty, the icebergs which are afloat. If they are close to either shore, they are sure to be aground; and they may have been there for a week or more. A berg towards the north side of the strait is more likely to be afloat, as the water there is deeper. In the middle part of the strait, any berg will ground if large enough. It is there a question of size, and the probability of its being aground is stronger if it is at a position where the water shallows to the westward, or if it is over the Centre Bank. The smaller bergs, well clear of the shore, are of course the most likely to be afloat.

*Time of turn of the current in relation to time of the tide.*—This relation was found to be quite definite so long as the current was under the control of the tide, without appreciable dominant flow. But these data, which are so valuable to mariners in ordinary estuaries, are unfortunately of uncertain application in this strait; unless it were possible to know, while there, that the tidal streams were normal and not modified by dominant flow which necessarily throws them out of time.

*Velocity of the current.*—In giving the values for the velocity, it is necessary to distinguish the various elements in the current, and the result of their combination under various conditions. These are as follows:—

(a) Current without diurnal inequality, at times when the moon is on the equator or near to it, and there is no dominant flow. Flood or ebb velocity at spring tides, 1·50 knots; at neap tides, 0·68 knots.

(b) Current with diurnal inequality, at times when the moon is at its maximum declination, and there is no dominant flow. At spring tides, strong flood and ebb velocity, 2·27 knots; weak flood and ebb, 0·72 knot. At neap tides, strong flood and ebb velocity, 1·04 knots; weak flood and ebb, 0·32 knot.

(c) Amount of dominant flow considered separately. The greatest rate of flow in each direction which occurred in the course of any one day during two seasons of observation, was as follows:—

Westward.—Average flow 1·69 knots; the current running continuously westward without turning, but fluctuating from 2·65 knots to 0·64 knot with the flood and ebb.

Eastward.—Average flow 1·30 knots; the current running continuously eastward with out turning, but fluctuating from 2·76 knots to 0·50 knot with the ebb and flood.

It is thus evident that the dominant flow is often sufficient to overcome the ordinary tidal streams, and prevent the current from turning as it otherwise would. This will occur when the tidal streams themselves are weak, as they may be at the neaps, or when the diurnal inequality is large. The highest actual velocities ever observed, under such combinations of conditions as were met with, were as follows:—

Westward, during a flood period, 3·45 knots.

Eastward, during an ebb period, 2·83 knots.

*Wind disturbance.*—The effect of the wind in Belle Isle strait in raising a sea quickly is very noticeable; but any direct effect upon the movement of the water, as far as careful observation can detect, is remarkably slight in a strait so open at both ends.

It is anything but true that the current always sets with the wind which is blowing locally in the strait; since the ordinary tidal streams as they turn, will set directly against the wind, even when it is fairly heavy. On the other hand, in unsettled weather, the wind often comes up with the turn of the tide; or it is held back until slack water by the tidal stream setting against it. This apparent influence of the turn of the tide upon the wind was frequently observed.

There was no evidence, after any of the gales, that the wind was able to reverse the direction of the tidal streams, or that it was able to check to any noticeable extent, the dominant flow at the time. But when a period of several days is considered as a whole, the current which sets against the wind prevailing at the time, is somewhat retarded on the surface. The observations indicate that a large mileage of wind is required to produce a true wind drift.

These results are based upon observations taken as soon as the weather moderated. If the effects are greater while a gale lasts, the current must recover its usual behaviour almost at once, when the wind falls.

## NORTHUMBERLAND STRAIT.—TIDAL STREAMS.

The flood sets south eastward through the Western narrows off West Point of Prince Edward island and through the Central narrows at Cape Tormentine, and it sets westward through the Eastern narrows off Wood islands; the ebb having the reverse directions. The tidal streams thus meet in the expanse between the Hillsborough and Baie Verte.

*Effect of the moon's declination.*—When the moon is in high declination, north or south of the equator, the two tides of the day are quite unequal. As this change recurs in the tropical month which is shorter than the synodic month of the moon's phases, the one period over-runs the other. The current shows the same features. When the moon is in high declination, the turn of the current is alternately earlier and later than the average, in relation to the time of high and low water; and the strength of one flood and one ebb in the day is much greater than the strength of the other two. These inequalities occur in some months at the springs and again in other months at the neaps, for the reason mentioned above; and they are reversed, as between the day and night tides, at the opposite seasons of the year. Such variations are apt to be attributed to the wind, whereas they recur with astronomical regularity.

*Time relations.*—The results obtained from the observations are given below in tabular form. The mariner may thus know at any moment whether the flood or ebb is running, and the time when each attains its maximum strength, which are the matters of chief practical importance.

Locality.	For time of Maximum strength on the Flood.	For time of Maximum strength on the Ebb.
In Eastern narrows off Wood islands.	Add 6 h. 00 m. to L. W. at St. Paul island.	Add 5 h. 57 m. to H. W. at St. Paul island.
In Central narrows at Cape Tormentine.	Add 10 h. 35 m. to L. W. at Father Point.	Add 4 h. 04 m. to H. W. at St. Paul island.
In Western narrows off West Point, P.E.I.	Add 11 h. 32 m. to L. W. at Father Point.	Add 4 h. 38 m. to H. W. at St. Paul island.

The above values, when added to the time of the tide as given in the Tide Tables for the localities indicated, will give the result in Atlantic Standard time.

For the Central narrows at Cape Tormentine, greater accuracy can be obtained by allowing for variation with the moon's declination, as explained in "Currents in the Gulf of St. Lawrence," page 33.

*Strength of the current.*—The maximum velocities at mid-flood and mid-ebb, at the spring and neap tides respectively, are given in the following table. The values are the averages for two days before and after the springs and for two days before and after the neaps in each month of the observations.

Locality.	ON THE FLOOD.		ON THE EBB.		Greatest velocity observed.
	Springs.	Neaps.	Springs.	Neaps.	
In Eastern narrows .....	1·79 knots...	0·98 knots...	1·81 knots...	0·98 knots...	2·35 knots
In Central narrows.....	1·65    "    ...	1·17    "    ...	1·31    "    ...	0·83    "    ...	2·21    "
In Western narrows.....	1·61    "    ...	1·20    "    ...	1·44    "    ...	1·00    "    ...	2·03    "

The high value of the greatest velocities observed, relatively to the average velocities, is largely due to diurnal inequality; as the velocity on the other corresponding tide, 12 hours earlier or later on the same day, was quite half a knot less.

### SHIPPIGAN GULLY.—TIDAL STREAMS.

The flood comes from Chaleur bay, and runs southward; and the ebb runs northward. The turn of the current occurs in the vicinity of Half tide, rising or falling in Shippigan harbour. The flood is somewhat stronger than the ebb, and it gains velocity more rapidly at the beginning and falls off more rapidly at the end, than the ebb does. The greatest strength either way, is approximately 5 knots per hour.

To find the time at which the turn occurs, subtract the differences given below from the time of the tide at Father Point. The results will be in Atlantic Standard time.

For beginning of Flood (running South) subtract 1 h. 05 m.

For beginning of Ebb (running North) subtract 55 minutes.

The duration of actual slack, or dead water, is 10 minutes at either turn. The current remains moderately slack, or less than one knot per hour, for about 45 minutes.

### BRAS D'OR LAKES.—TIDAL STREAMS OF THE INLETS AND GRAND NARROWS.

These lakes are connected with the ocean by the Great and Little Bras d'Or, which communicate with the first expanse; and this again communicates through Grand Narrows with a second and larger expanse. The rise of the tide in the open is 3 to 5 feet, but the lakes have not time to fill up in the tidal period, and their variation in level is less than one foot. Consequently, the turn of the tidal streams in the connecting passages occurs ordinarily at about the half-tide level; but with a marked variation at times, of the nature of diurnal inequality.

The time of slack water, at the turn of the current, was observed at the entrance to the Great Bras d'Or during 3 months in 1915; and it was obtained at Grand Narrows by means of a registering apparatus, day and night, for 5 months. An exhaustive investigation showed that at the entrance, the best relation between current and tide was with Atlantic ports, while at Grand Narrows the best relation was with a port where the tide itself was later in arriving, giving the inequality time to attain an equal development. It was also found that the middle of the run of flood and ebb, or the moment midway between successive slacks, affords a more constant relation with the time of the tide, than it is possible to obtain for slack water. (This is owing to the diurnal inequality in the duration of the run, which displaces the time of the turn; whereas the middle of the run maintains a more steady relation to the time of the tide.)

*Time of Slack Water.*—The following differences for the time of the two slack waters are as good as can be obtained. Although only approximate because of the large variations that occur, the result may be of some service.

Great Bras d'Or.— $2\frac{1}{4}$  hours before High Water at St. Paul island.

Great Bras d'Or.— $2\frac{1}{4}$  hours before Low Water at St. Paul island.

Grand Narrows.— $3\frac{1}{2}$  hours before High Water at Charlottetown.

Grand Narrows.—4 hours before Low Water at Charlottetown.

*Middle of Flood and Ebb.*—This middle moment in the run of the tidal stream will enable the mariner to know whether the flood or the ebb is running, which is the matter of chief practical importance. The differences in the table below, give a closer and more definite result than for slack water, for the reasons explained.

Locality.	For time of Middle of Flood.	For time of Middle of Ebb.
In Great Bras d'Or. . . . .	Add 1 h. 36 m. to H. W. at Halifax.	Add 1 h. 03 m. to L. W. at St. Paul island.
In Grand Narrows. . . . .	Add 1 h. 18 m. to H. W. at St. Paul island.	Add 0 h. 05 m. to L. W. at Pictou.

*Wind influence.*—The effect of the wind is not local, but should probably be attributed to the raising of the water level in the angle of Cape Breton island, between Sydney and Cape North. Easterly winds have the greatest effect, and cause the level of the lakes to rise 12 to 18 inches, as observed at Grand Narrows. This may occur once or twice in the Spring and Autumn; and at such times the flood runs almost continuously, with little ebb. With westerly winds the water does not fall below normal in the same way that it rises with easterly wind.

#### THE GUT OF CANSO.—CHARACTER OF THE CURRENT.

The Gut of Canso connects two regions in which the tide is of two distinct types, although the range is nearly the same, being 4 and  $4\frac{1}{2}$  feet at its two ends at spring tides. At the northern end, diurnal inequality is highly developed, and one tide in the day may at times be reduced to a level stand for 10 or 12 hours. At the southern end, the tide is of the ordinary Atlantic type, and the inequality is scarcely apparent. Also, the time of high water is not simultaneous at the two ends of the Gut. As the flow through the Gut depends on the difference in the height of the tide at the two ends, its tidal streams are necessarily complex in their time relations; while in strength they often attain  $3\frac{1}{2}$  knots. This general explanation has been given in the Tide Tables since 1906, as previously the seeming irregularity of the current was attributed to the wind.

Observations of the turn of the current were obtained for three months in 1915, and six months in 1916, by the Captain of the Car Ferry *Scotia* assisted by his First Officer. In the second season, the observations were continued throughout the night. A digest of these observations shows that the proximate influence of tide levels may be ignored, and the behaviour of the current brought into direct relation with the declination of the moon, which is the primary cause of the diurnal inequality in the tide.

A current which is under the influence of declination, should have an equal run in the two directions when the moon is on the equator. But in this case there is a dominant flow southward, represented by an average of  $2\frac{1}{4}$  hours longer flow in that direction during the course of the tidal period, or half lunar day. Consequently, when the moon is on the equator, and the flow is as nearly equal in the two directions as it becomes, the flood runs for 5 h. 05 m. northward, and the ebb for 7 h. 20 m. southward, on the average, during the tidal period.

At the extreme of the moon's position, when it is at its maximum declination north or south of the equator, the current turns only once in the day instead of twice; or, broadly speaking, it runs for about half of the 24 hours in each direction. The two runs are also made unequal, as before, by the dominant flow southward, and the actual periods become 10 hours northward and  $14\frac{1}{2}$  hours southward, on the average.

*Behaviour.*—The period in which these changes take place, is the declination-month of  $27\frac{1}{4}$  days, in which the moon crosses the equator twice, going north and south. When the moon is near the equator, the behaviour resembles an ordinary tidal stream, turning twice a day; but in the course of the next 6 or 8 days, two of the runs in the day increase in length till the other two are reduced to a period of weak current and then disappear altogether, leaving only one run in each direction by the time the moon reaches its maximum declination north or south. From then on, the transformation is reversed for 6 or 8 days, until the moon again crosses the equator. Throughout these changes, there is always an over-balance in favour of the southward direction, as explained.

*Time of turn.*—Under these conditions, it is only possible for the current to have a definite relation to the time of the tide when the moon is near the equator; that is, during two groups of about three days each, twice in the declination-month. The best relations are with the time of H. W. and L. W. at St. Paul island, which is exactly opposite the Gut at the other end of Cape Breton island. For these equatorial tides, the following relations have been obtained: The turn from N. to S. occurs 10m. after the moment of half tide, falling, at St. Paul island; and the turn from S. to N. at 32m. after the moment of half tide, rising. These relations show that the turn of the current follows definite laws; and although so complex, its behaviour is not erratic.

*Dominant flow.*—The greater flow southward in the Gut of Canso, appears to correspond with the constant outward flow from the Gulf of St. Lawrence towards the Atlantic which takes place around the north end of Cape Breton island, on that side of Cabot strait.

*Wind influence.*—The effect of the wind is chiefly due to the raising of the water level during north and northwest gales, in the angle of the Gulf of St. Lawrence at the northern end of the Gut. The flow in the southward direction is then increased, or prolonged to some extent. Winds from the opposite quarter have less effect. Far too much has been attributed to wind influence, however; as the main features in the behaviour of the current have astronomical causes; and the strongest winds in the summer season are unable to obliterate these features.

#### CURRENTS OFF THE SOUTH AND EAST COASTS OF NEWFOUNDLAND.

(*Summary from detailed Report. See list on page 4.*)

From investigations made during the season of 1903, from May to September, by means of a steamer anchored at various points in the vicinity of the steamship route, which passes south of Newfoundland.

*General character.*—When more than five miles from shore, there are no currents at any time throughout the season which exceed one knot in any direction. The only exception to this is the Labrador current along the east coast, in which a maximum speed of 1·15 knots was observed. This emphatically contradicts the statements so often made, that strong currents are here met with.

*Tidal influence.*—On the south coast, when within four or five miles of the shore, the current is chiefly governed by the tide, and sets in the two opposite directions alternately; but the farther out the point of observation, the greater the tendency for the direction of the current to veer completely around the compass.

*General set and indraught.*—The water makes westward on the whole, along the south coast, from Cape Race towards Placentia bay; that is to say, when a long average is taken, the set is more frequently in that direction than in any other. With regard to indraught towards the bays, the water makes inwards on the whole on the eastern side of Placentia bay, in the same sense that it makes westward along the south coast. A corresponding indraught is felt at certain times of the tide, on the east side of St. Mary's bay. As already noted regarding the currents in general, these indraughts do not exceed one knot at an offing of five miles or more.

*The Labrador current.*—This current sets very constantly to the southwest, for a width of 30 or 40 miles off the eastern coast. During times of disturbance, it may set south eastward, or even be reversed on the surface. When such disturbance occurs, it is usually for part of a day immediately before a gale comes on. It shows a fluctuation in speed with the tide, similar in description to the Gaspé current; being stronger during the flood tide, and weaker during the ebb.

#### CURRENTS IN THE BAY OF FUNDY.

(*Summary from detailed Report. See list on page 4.*)

From investigations made by means of a steamer anchored at a number of points, at  $3\frac{1}{2}$  to 18 miles from shore, on the routes usually taken by steamships, in the region extending from St. John, N.B., to Cape Sable.

*General character.*—The currents are predominantly tidal in their character, running strongly during flood and ebb in the two directions, which are usually opposite. Any veering, or set in a cross direction, occurs only when the current is weak. At the points farther from shore, the current veers more in turning and does not reverse its direction so promptly. The time of slack water has a definite relation to the tide at St. John, N.B., and it can be found from the St. John tide tables by the use of constant differences, which are given in the published pamphlet on this region, entitled "Tables of the Currents in the Bay of Fundy."

*Influence of the moon.*—In this region the moon's distance, as it varies from perigee to apogee, alters the strength of the currents quite as markedly as the change from springs to neaps with the moon's phases.

*Disturbance.*—Almost everywhere, the current is as strong down to a depth of 30 fathoms as it is on the surface; and at most places it turns in direction on the surface and below at practically the same time. This has an important bearing on wind disturbance, as it shows that the current will soon regain its normal direction and strength after a storm moderates.

*Special note.*—The characteristic of the current which deserves special attention, is the change found at points only a few miles apart. The behaviour of the current is very regular and constant at any definitely fixed point; but a change in position of even a few miles may make a marked difference in its character. This difference is chiefly in the strength and in the time of slack water, and not so much in the direction. In passing islands, the strength may be very different indeed, according to the offing given; and in channels and passages there may be a difference, between the centre and the sides, of an hour in the time of slack water.

## EXPLANATIONS REGARDING TIDAL DIFFERENCES AND TIDAL FEATURES.

*Tidal differences.*—These differences enable the time of the tide in any harbour to be found from the principal stations for which Tide Tables are published.

The tide of the ocean, in its progress through straits and gulfs, becomes modified in character and changes its type. To obtain a satisfactory basis for Tidal Differences, it is therefore necessary that principal stations should be located where they will command a region in which the tide maintains the same type. The extent of the region that can best be referred to each station must then be ascertained, to obtain tidal differences which are constant and give good results. The outcome of these methods will be seen from the areas referred to the various principal stations in the lists of Tidal Differences.

Most of the differences of time are derived from observations during three to five months, which are simultaneous at the secondary harbour and the principal station. The accurate difference which results, is thus equivalent to a complete tide table for the harbour for which it is given. Those of the tidal differences which are based on difference of Establishment, are checked by observations at neighbouring places in the region.

The diurnal inequality appears to change more rapidly with the progress of the tide than any other feature. Even with a well-determined tidal difference, a few tides in the month are affected by it; and the result given by the difference will be early and late alternately. This happens when the moon is in high declination, north or south of the equator; and care should be taken to notice when this occurs.

*Gulf of St. Lawrence.*—On the North shore of the Gulf, the rising tide and High Water are in accord with the entering tide in Cabot strait, while the falling tide and Low Water are in accord with the St. Lawrence estuary. This results from a reversal of the alternate tides on the opposite sides of the Gulf area; and it is thus necessary to distinguish High Water and Low Water, and to refer them separately to St. Paul island and Father Point in the two directions. In the north-eastern angle of the Gulf, beyond Point Rich, the tide is in closer accord with Belle Isle strait. Should it become necessary, this region can be referred to Forteau bay, the tidal station in that strait.

*Currents in the Gulf area.*—The behaviour of the tidal streams in the straits and bays opening off the Gulf of St. Lawrence, present the same features as the tide itself. The time at which these streams turn, or the time of their maximum strength, have been brought into relation with the time in the tide tables for the reference stations, by means of differences. These show the same characteristics as the tidal differences for high and low water. On the Flood, whether for its beginning or its maximum strength, the relation is with Father Point; and on the Ebb the similar relations are with St. Paul island. This will be seen in the figures given in the preceding pages for Northumberland strait and for the Bras d'Or lakes. It is not until the mouth of the St. Lawrence is entered, that the tidal effect upon the current can be referred to the same station, namely Father Point, or both flood and ebb; as will be seen in the figures for the Gaspé current.

It is thus necessary to refer the movements of both tide and current to stations at the opposite sides of the Gulf, to obtain constancy in the time relations; and the turn of the tidal streams can seldom be referred with accuracy to the local tide of the strait or bay itself.

*Diurnal inequality in the southern half of the Gulf.*—When the moon is over the earth's equator, the two tides of the day are equal to each other; but as the moon's declination increases to the north or south of the equator, the day and night tides become unequal in range, and the time-intervals between successive tides also become unequal. In regions where this diurnal inequality is highly developed, it is only for two or three days at a time, when the moon is near the equator, that the two tides of the day are at all equal; and when the moon reaches its extreme declination north or south of the equator, there may be only one well-marked H. W. and L. W. in the day, as the other two are effaced. The tide is then said to become diurnal. In the southern half of the Gulf of St. Lawrence, diurnal inequality develops very markedly, and its special features are as follows:—

On the north coast of Prince Edward island, and to a less degree on the west side of Cape Breton island, the tide becomes diurnal when the moon is at its maximum declination. In applying the tidal differences at such times, only one H. W. and one L. W. in the day will be found, as the other two are then effaced. This occurs for a few days at a time, twice in the month. In the region at the western end of Northumberland strait, when the declination of the moon is at all high, the tide shows in the same way a pronounced range once only in the day; but with a singular reversal of its features in a short distance. At Richibucto, it is the rise which is pronounced, and the other tides remain near the Low-water level; while in Shediau bay the fall is pronounced, with little variation from the High-water level on the other tides, whose range is not over 1½ feet.

At Portage island in the mouth of Miramichi bay, the relation of H. W. to St. Paul island is fairly constant; but the diurnal inequality in the time of L. W. is so extreme that no relation to any port of reference in Eastern Canada could be found, on which a tidal difference that is even fairly constant could be based. After extended comparisons with tides of a similar type in various parts of the world, the time of L. W. was found to accord best with the tide at Sand Heads in the Strait of Georgia, where the diurnal inequality is equally extreme. The tide tables for Portage island are computed on the basis of these relations.

Because of the rapid change in the type of the tide from the Miramichi region to Shediac, it is necessary to refer successive localities to different ports of reference. The region that can be referred to Portage island is limited to Miramichi bay itself. The tidal differences based on St. Paul island must be subtracted from the next following tide there; for otherwise, the differences vary so widely as to be practically valueless for finding the time of the tide. Low Water at Richibucto and High Water at Shediac cannot be referred with advantage to any port of reference; but these tides are frequently flat and uncertain in time, as already explained. At Shediac, L. W. can be referred to Charlottetown in continuance of Northumberland strait.

In Northumberland strait proper, the tide never becomes diurnal, as there are always two tides in the day; but the diurnal inequality is highly developed, and increases with the progress of the tide westward. Pictou is therefore utilized as a secondary port of reference in the middle of the strait, as the inequality in the two directions can thus best be distributed. The eastern and central parts of the strait are referred to Pictou, and the area beyond Cape Tormentine is referred to Charlottetown.

In regard to the range of the tide, it is to be noted that in some months, the inequality will occur at the spring tides, and in other months at the neaps, according to the moon's position. It is also reversed, as between the day and night tides, at the opposite seasons of the year. At Charlottetown, the inequality between the two tides of the day may be greater than the true difference between springs and neaps.

*Saguenay.*—The lower Saguenay, from Tadoussac at its mouth to Bagotville in Ha ha bay, forms a deep-water inlet, 55 miles in length. It is similar to the inlets of British Columbia, as the depth is not less than 100 fathoms throughout; and the difference in the time of the tide is only 12 minutes on this whole distance of 55 miles. In the St. Lawrence estuary, which is of the usual type (that is, shallow relatively to its width) the difference in the time of the tide for the same distance measured from Quebec is 2 h. 00 m. for High Water and 2 h. 55 m. for Low Water.

For the ports on the lower Saguenay, the time of the tide and the rise are thus intermediate between Tadoussac and Bagotville; and the whole inlet is properly referred to Father Point.

At Chicoutimi, in the river above the head of the inlet, the tide can be referred to Quebec; as it is of an estuary type, quite similar in character. The range is reduced somewhat by the river slope, especially during the freshet months. The usual time of the freshet in the river is from April to the end of July. During this period, the High-water level is much the same as usual; but the raised stage of the river prevents Low Water from falling to normal. The freshet culminates about the beginning of June; and from that month onward, the level of Low Water, at successive spring tides, drops lower till the month of August. The greatest range of the tide occurs between August and October while the river is low, and until the autumn rains begin to raise its level again.

*St. Lawrence estuary.*—It has been ascertained by careful comparison of simultaneous observations, that the whole of the open estuary of the St. Lawrence below Orignaux point, and the north shore of the Gulf as far as Mingan and Natashaquan, can be referred to Father Point with the best advantage; together with Anticosti, Gaspé and Chaleur bay.

*The St. Lawrence river.*—The true head of the estuary of the St. Lawrence is at the lower end of Orleans island, where the tide has its greatest range. At Quebec, the range is already beginning to be cut off by the river slope; and it gradually diminishes till the tide finally ceases to be felt in the expanse of Lake St. Peter.

In the river above Quebec, the tidal differences vary with the season; as the tide is a few minutes earlier or later in the spring when the water is at a higher stage, than in the autumn when it is lower. A special table is given which shows these variations; and in calculating the tide tables for Cap à la Roche, the variation in the course of the season is allowed for.

*Bay of Fundy.*—In this bay, the variation in range with the change in the moon's distance from perigee to apogee, is distinctly greater than the variation from springs to neaps. This is termed the anomalistic type of tide. When the rise of tide is so great, all the variations are also magnified. At the head of Minas basin where the greatest range occurs, there is a difference of  $10\frac{1}{4}$  feet between the spring tides at perigee and apogee; and the difference in range between apogee springs and the mean neap tides is only  $1\frac{1}{2}$  feet. Hence when perigee occurs at the springs, the tide has nearly the same height during three-quarters of the month, but attains a great height at one of the two spring tides. The diurnal inequality is also magnified; and it may cause a variation of  $2\frac{1}{2}$  feet in either H. W. or L. W. between the day and night tides. Under a combination of these conditions, it is possible for the tide to rise 53 feet; which is the extreme, apart from storm disturbance.

The progress of the tide in time is extremely regular throughout the bay; and the tidal differences with reference to St. John are very constant from Yarmouth to the heads of the arms. In the upper part of the bay, the tidal difference for L. W. appears to be nearly the same as for H. W. For the latest tide at the head of the bay, these differences as determined at Burntcoat head, are 1 h. 08 m. and 1 h. 18 m. respectively.

(For full information regarding the rise of these tides and their characteristics, see "Tides at the head of the Bay of Fundy" published by the Tidal Survey.)



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Can. Hydrographic and Map Service.  
Tide tables for the Eastern Coasts of Canada.  
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